

CRPL-F 214 PART B

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PART B  
SOLAR - GEOPHYSICAL DATA

ISSUED

JUNE 1962

U. S. DEPARTMENT OF COMMERCE.  
NATIONAL BUREAU OF STANDARDS  
CENTRAL RADIO PROPAGATION LABORATORY  
BOULDER, COLORADO



## SOLAR - GEOPHYSICAL DATA

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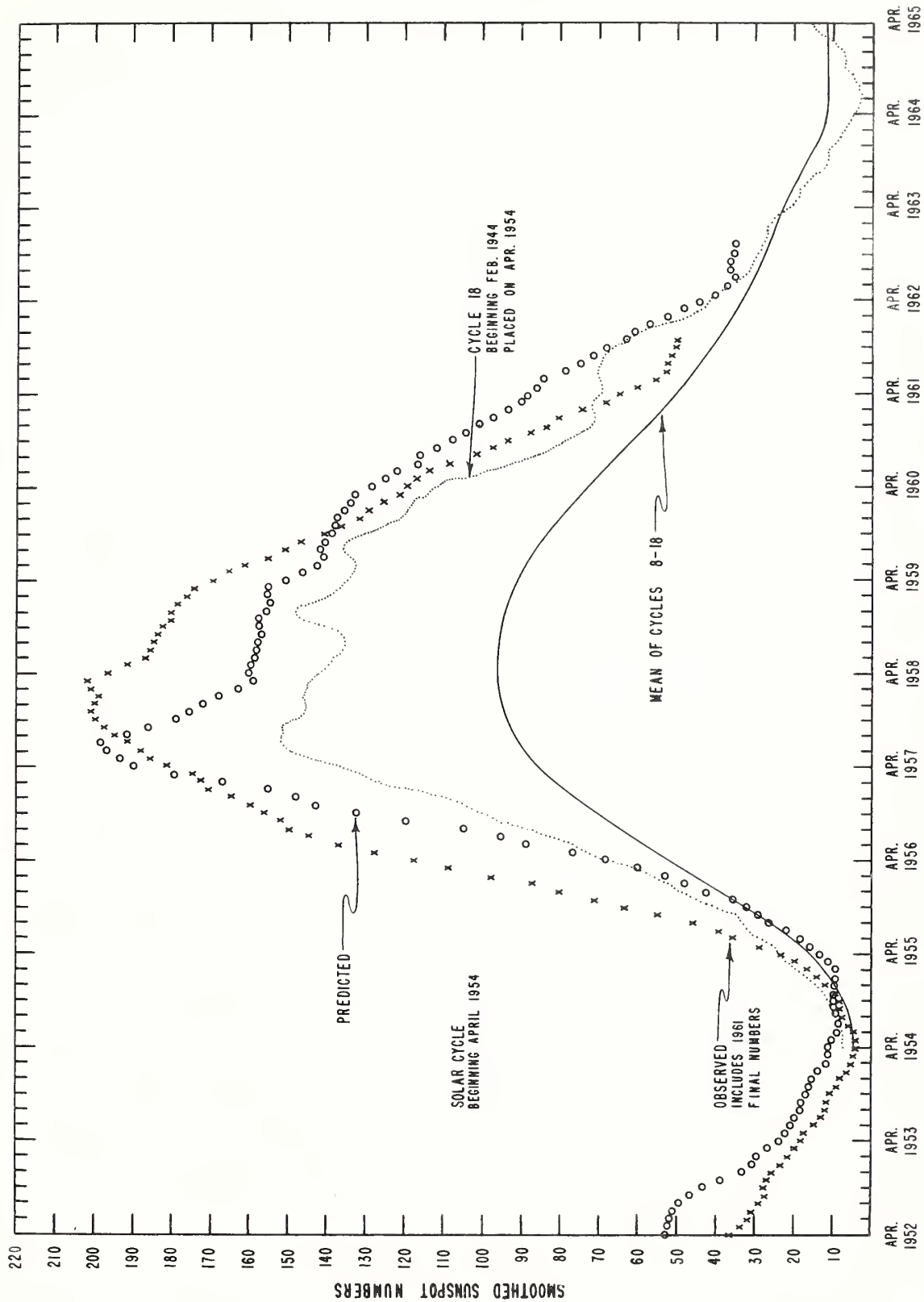


The descriptive text was republished November 1961.  
Addenda to the text were published February 1962.

## DAILY SOLAR INDICES

Apr. 1962	American Relative Sunspot Numbers $R_A$
1	32
2	31
3	34
4	31
5	21
6	18
7	28
8	21
9	18
10	1
11	8
12	39
13	62
14	65
15	76
16	77
17	80
18	66
19	69
20	49
21	64
22	64
23	48
24	25
25	14
26	18
27	26
28	28
29	24
30	25
Mean:	38.7

May 1962	Zürich Provisional Relative Sunspot Numbers $R_Z$	Daily Values Solar Flux at 2800 Mc, Ottawa, Canada Flux
1	49	94
2	48	95
3	46	94
4	42	91
5	37	87
6	35	87
7	31	83
8	33	84
9	32	87
10	43	91
11	43	98
12	44	98
13	36	96
14	26	94
15	13	91
16	18	89
17	26	93
18	26	95
19	26	97
20	31	103
21	45	106
22	59	110
23	62	111
24	52	111
25	60	112
26	57	110
27	54	109
28	60	103
29	59	104
30	58	105
31	46	104
Mean:	41.8	97.8



## CALCIUM PLAGE AND SUNSPOT REGIONS

MAY 1962

CMP May 1962	Lat	McMath Plage Number	Return of Region	Calcium Plage Data			Sunspot Data					
				CMP Values Area Int.		History, Age	CMP Values Area Count		History			
01.0	S07	6407	New	400	2	b $\nearrow$ l 1	510	5	l — l			
01.4	N13	6403	6385	5000	3.5	l — l 2						
02.3	S05	6404	New	200	1	l $\searrow$ d 1						
03.0	N14	6405	*	(2200)	(3)	l — * 1						
03.2	N18	6408	New	700	2	l $\searrow$ l 1						
06.2	N18	6411	New	1600	3	l — l 1	40	2	l $\searrow$ d			
07.6	S18	6414	New	300	2.5	b $\nearrow$ l 1	(50)	(7)	b $\nearrow$ l			
11.0	N11	6412	6386	3600	3	l $\searrow$ l 3	50	1	l $\searrow$ d			
11.2	S04	6415	6388	700	2	l $\searrow$ l 2						
13.5	N15	6418	6389	400	1	l $\searrow$ d 9						
13.7	N18	6423	New	500	2	b $\wedge$ d 1	170	5	l — l			
14.9	S10	6416	6391	2000	3	l — l 2						
16.1	N10	6417	6393	2800	3	l — l 5						
17.5	S10	6420	**	1400	2	l — l 4						
18.1	N11	6419	6395	2200	2.5	l — l 5						
19.6	N20	6421	6398	3400	3	l — l 5	10	1	l $\searrow$ d			
19.6	S12	6422	6397	1100	2	l — l 3						
21.7	N05	6429	New	300	2	b $\nearrow$ l 1						
22.5	S07	6425	New	400	2	l — l 1						
22.7	N05	6424	***	600	2	l $\nearrow$ l 2						
24.5	N04	6430	New	200	2.5	b $\nearrow$ l 1	360	18	l — l			
26.8	N15	6426	6406B	3700	3	l — l 2						
28.0	S08	6427	6407	3200	3	l — l 2				720	7	l — l
28.4	N13	6428	6403	2800	3	l — l 3				50	2	b $\wedge$ d
30.6	N20	6434	*****	500	3	b $\wedge$ d 1						

\* Became part of 6403

\*\* 6394 and 6396

\*\*\* Return of region that formed on the disk on April 29 in position of old 6400

\*\*\*\* New in position of old 6408

Addition to report for April:

A region, 6406B formed on disk between April 30 and May 3. It was N14 W60 on May 3, with intensity 2 and area 200. In April it was New, in position of old 6406 which had died on the disk.

COMMERCE - STANDARDS - BOULDER



# MT. WILSON MAGNETIC CLASSIFICATIONS OF SUNSPOTS

MAY 1962

May 1962	Time Meas.	Lat.	Mer. Dist.	Type		May 1962	Time Meas.	Lat.	Mer. Dist.	Type
1	1820	N09 S05 N11 N19 N20	W08 W08 W01 E18 E59	$\beta\lambda$ $\alpha f$ $\alpha f$ $\beta f$ $\beta p$		7	1620	N20 S18 N15	W24 W01 E44	$\alpha p$ $\alpha f$ $\alpha p$
2	2000	N09 N18 N20	W23 E02 E43	$\beta\lambda$ $\alpha p$ $\beta p$		8	2330	S18 N15 S08	W19 E26 E78	$\beta$ $\beta p$ $\alpha p$
3	1650	N09 N19	W36 E33	$\beta\lambda$ $\beta p$		9	1640	S18 N15 S09	W29 E16 E68	$\beta p$ $\alpha p$ $\alpha p$
4	2255	N09 N20	W53 E14	$\beta\lambda$ $\beta p$		11	1735	S19 N15 S09	W58 W12 E40	$\beta p$ $\alpha p$ $\alpha p$
5	1930	N09 N20 N16	W56 E01 E69	$\alpha p$ $\alpha p$ $\alpha p$		17	1650	S09 N06	W39 E61	$\beta f$ $\alpha f$
6	1840	N20 S18 N15	W12 E10 E56	$\alpha p$ $\beta p$ $\alpha p$		22	1930	N13 S09	E43 E64	$\alpha p$ $\beta p$

COMMERCE - STANDARDS - BOULDER

PROVISIONAL CORONAL LINE EMISSION INDICES

MAY 1962

CMP May 1962	North East Quadrant (observed 7 days earlier)				South East Quadrant (observed 7 days earlier)				South West Quadrant (observed 7 days later)				North West Quadrant (observed 7 days later)			
	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1	G6	G1	R6	R1
1	49	134	x	x	16	39	x	x	x	x	x	74a	x	x	x	x
2	37	87	x	60a	9	25	25a	35a	7a	8a	58a	55a	42a	76a	57a	77a
3	x	x	x	x	x	x	x	x	6	11a	42a	24	19a	22a	48a	72a
4	x	x	x	x	x	x	x	x	10	6	19	x	15	22	30	54
5	8	11	25	33	3	6	22	36	10	25	x	x	25	53	x	x
6	x	x	x	x	x	x	x	x	5	8	x	x	2	2	x	x
7	3a	4a	8	10	2a	4a	11	12	20	34	21a	26a	9	12	25a	40a
8	14	20	7a	12a	7	11	9a	14a	6	14	x	x	18	31	x	x
9	24a	36a	x	x	12a	17a	x	x	x	x	x	x	x	x	x	x
10	27a	59a	x	x	8a	11a	x	x	10	17	10a	20a	51	120	8a	10a
11	3a	4a	x	x	-a	-a	x	x	7	9	11	16	45	84	19	56
12	54	112	x	x	17	36	x	x	13	20	32	40	43	64	31	38
13	x	x	x	x	x	x	x	x	19	37	20a	40a	42	58	26a	54a
14	x	x	x	x	x	x	x	x	19	55	5	10	18	42	8	14
15	x	x	x	x	x	x	x	x	22	51	9	10	30	55	5	12
16	95a	168a	17a	100a	49a	92a	48a	90a	46	76	16a	20a	65	101	9a	12a
17	99a	157a	32a	96a	64	115	30a	38a	38	70	7	8	127	201	18	40
18	86	148	28	82	56	90	18	20	30	37	x	x	38	46	x	x
19	60	115	x	x	28	59	x	x	14	20	x	x	18	20	x	x
20	12	14	x	x	9	14	x	x	16	25	8	10	25	33	2	2
21	23	26	20a	36a	13	16	22a	25a	x	x	x	x	x	x	x	x
22	16	22	x	x	8	11	x	x	4	8	11	16	22	42	16	40
23	x	x	x	x	x	x	x	x	12	20	x	x	32	53	x	x
24	34	70	3a	5a	8	14	2a	2a	x	x	x	x	x	x	x	x
25	37	75	14	28	6	9	10	12	8	21	16	22	31	34	6	10
26	72	126	33	57	19	31	12	16	31	59	x	x	71	179	x	x
27	87	171	23a	45a	39	76	22a	32a	51	92	25	36	118	244	31	44
28	34	53	8	12	9	18	11	16	28	50	x	x	65	174	x	x
29	30	46	11	28	7	15	11	18	x	x	x	x	x	x	x	x
30	33	50	22	30	10	14	40	52	x	x	x	x	x	x	x	x
31	12	22	14	24	14	30	31	34	4	6	7	10	6	7	4	4

x = no observations

a = index computed from low weight data

\* = yellow line observed

# SOLAR FLARES

MAY 1962

IIIa

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	LAT.	APPROX. MER. DIST.				MC-MATH PLAGE REGION	TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.		MAX. WIDTH Ha
KODAIKNL	01	0150 E	0208	N20 E73	6411	18 D	1	3	0153	.77	3.20	2.08	114	S-SWF
KODAIKNL	01	0305	0308	N20 E73			1-	3	0305	.50	2.10	1.44	114	
KODAIKNL	01	0420	0750 D	N20 E71	6411	210 D	2	2	0445	1.75	6.40	2.16	122	
ZURICH	01	0642	0712	N19 E68	6411	30	1	3	0642		5.00			
ONDREJOV	01	0649 E	0702 D	N22 E65	6411	13 D	1+	2	0649			3.60		
CAPRI S	01	0653 E	0732 D	N21 E67	6411	39 D	2	2	0655	2.80	8.40			
BUCHAREST	01	0656	0804	N21 E64	6411	68	2	2			9.20			
CAPRI S	01	1217	1402	N21 E64	6411	105	2	2	1306	2.50	7.50			
WEDEL	01	1230	1245	PATROL										
WENDEL	01	1250 E	1548 D	N19 E62	6411	178 D	2	2			9.00			
MCMATH	01	1549 E	1558 D	N21 E61	6411	9 D	1+	2	1550	1.50	3.70			
CLIMAX	01	1915	1928	N18 E63			1-			.60	.90			
SAC PEAK	01	1916	1929 D	N19 E61	6411	13 D	1	3		2.68	4.23		30	
HONOLULU	01	1928 E	1940 D	N19 E59	6411	12 D	1	1	1928	1.60	2.60		18	
SAC PEAK	01	2135	2145	N04 W12			1-	3		.77	.76		90	
IKOMASAN	01	2302		N06 W80			1-		2302	1.24			90	
IKOMASAN	01	2302	2320	N20 E56	6411	18	1		2315	1.86			90	
LOCKHEED	02	1722	1803	N06 W90			1	2	1738	.80	4.00		10	
SAC PEAK	02	1747	1835	N17 E49	6411	41	1	3		2.60	3.42		14	
LOCKHEED	02	1906	1936	N06 W90	6400	48	1	3		1.30	6.50		10	
SAC PEAK	02	1927	1952	N12 W17		30	2		1915		.47		16	
LOCKHEED	02	2006	2035	N06 W90			1-	3						
LOCKHEED	02	2131	2151	N06 W90			1-	2	2011	.20	1.00		20	
LOCKHEED	02	2200	2250	N06 W90			1-	2	2136	.30	1.50		20	
LOCKHEED	02	2200	2206	N06 W90			1-	2	2225	.30	1.50		10	
LOCKHEED	02	2200	2250	N06 W90			1-							
LOCKHEED	02	2321	2400	N06 W90	6400	39	1	2	2330	.50	2.50		10	
LOCKHEED	02	2321	2400	N06 W90			1							
IKOMASAN	02	2331	0140 D	N06 W90	6400	129 D	1		2340				100	
LOCKHEED	03	0045	0113	N06 W90	6400	28	1	2	0052	.70	3.50		10	
LOCKHEED	03	0127	0132 D	N06 W90			1-	2	0132	.20	1.00		10	
KODAIKNL	03	0209	0220	N10 W25	6403	11	1+	3	0212	1.75	1.98	2.08	122	
IKOMASAN	03	0216	0223	N11 W27	6403	7	1		0216	1.44		.82	100	
LOCARNO	03	0615	0630	PATROL										
KODAIKNL	03	0628	0723	N11 W27	6403	55	2	1	0659		4.00			
CAPRI S	03	0644	0718	N10 W25	6403	34	2	2	0653	3.50	4.00		122	
BUCHAREST	03	0646 E	0719 D	N09 W26	6403	33 D	1	2	0652	2.00	2.30			
HONOLULU	03	0655	0724	N12 W26	6403	29	2	1			9.10			
SAC PEAK	03	2030	2118	N12 E90	6412	48	1	3	2100	.93	3.25		17	
SAC PEAK	03	2139	2144	N18 E32			1-	3		1.82	2.00			
MCMATH	03	2141	2200 D	N19 E31	6411		1-	2	2142	.70	.90			
	04	0145	0200	PATROL										
	04	0900	1015	PATROL										
	04	1030	1145	PATROL										
CLIMAX	04	1423	1443	N18 E23			1-			.50	.50		16	
SAC PEAK	04	1427	1439	N18 E23	6411		1-	2		1.55	1.61			
MCMATH	04	1431	1442	N19 E21			1-	2	1432	.70	.80			
SAC PEAK	04	1428	1442	N19 E21			1-	2		.41	.52		17	
SAC PEAK	04	1617	1621	N10 W48			1-			.30	.40			
CLIMAX	04	1719	1738	N07 W49			1-							

SOLAR FLARES  
MAY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT.	MER DIST.				M-MATH PLACE REGION	TIME U T	MEAS AREA Sq Deg	CORR AREA Sq Deg	
SAC PEAK MCMATH	10 MAY 1962	2130	2155	N14 E06			1-	3		1.79	1.77		18
	10 2132	2138 D	NO FLARE	N15 E05			1-	2		.70	.70		
BUCHAREST WENDEL	11 0045	0415	NO FLARE	PATROL		156	1	2			2.90		
	11 0702	0938	0855	S19 W54	6414		1-						
SAC PEAK MCMATH	11 1155 E	1208 D		N15 W05			1-	3		.87	.99		17
	11 1334	1344	1338	S11 E41			1-	2		.20	.20		
SAC PEAK CLIMAX	11 1335	1344	1337	S09 E40	6416		1-	2		.30	.30		
	11 1615	1640	1622	S09 E38	6416	22	1-	3		2.17	2.39		17
LOCKHEED MCMATH	11 1618	1638	1621	S11 E39	6416		1-	1		.40	.40		
	11 1626	1642	1632	S09 E38			1-	1		.30	.30		20
LOCKHEED MCMATH	11 1644	1702	1651	S18 W61			1-	2		.60	.60		10
	11 1647	1658	1648	S20 W38	6414		1-	2		.30	.30		
SAC PEAK MCMATH	11 1745	1802	1750	S07 E38			1-	3		.60	.70		10
	11 1808	1826	1811	S10 E38			1-	3		1.51	1.67		18
LOCKHEED MCMATH	11 1811	1839	1817	S09 E37	6416		1-	2		.30	.30		
	11 1916	1932	1918	N15 W19	6412		1-	2		.30	.30		19
LOCKHEED MCMATH	11 1942	2006	1944	S08 E38	6416		1-	2		.40	.50		20
	11 2100	2114	2103	S09 E34			1-	1		.60	.60		
SAC PEAK MCMATH	11 2100	2120	2105	S10 E36			1-	3		1.88	2.02		19
	11 2102	2120	2104	S10 E36	6416		1-	2		.80	.80		10
SAC PEAK MCMATH	11 2130	2155	2136	S06 E35		23	1-	1		.30	.30		20
	11 2132	2155	2136	S09 E37	6416		1-	3		3.98	4.33		
LOCKHEED CLIMAX	12 0038	0104	0048	S08 E33			1-	2		1.50	1.60		20
	12 0039	0107	0045	S07 E35			1-			1.20	1.30		
CAPRI S BUCHAREST	12 0115	0330	NO FLARE	PATROL			1-	3		1.20	1.40		
	12 0648 E	0714 D		S09 E30			1-	2		1.90	1.90		20
SAC PEAK CAPRI S	12 0700	0750		S07 E30		51	1-	3		4.33	4.43		
	12 1327	1418	1339	S08 E27	6416		1-	2		1.30	1.40		
SAC PEAK CLIMAX	12 1338 E	1420		S09 E25			1-	3		1.50	1.50		19
	12 1351	1403	1356	S09 E26			1-	1		.50	.50		
SAC PEAK CLIMAX	12 1446	1454 D	1449	S13 E30			1-	3		.90	.90		19
	12 1552	1602	1557	S09 E25			1-	1		.43	.43		18
SAC PEAK CLIMAX	12 1555	1604	1558	S09 E26			1-	1		.80	.80		17
	12 1725	1731 D	1729	S09 E23			1-	1		.41	.41		20
SAC PEAK SAC PEAK	12 1732 E	1737	1732 U	S09 E24			1-	1		.72	.72		
	12 2026	2038	2030	S20 W68			1-	1		.30	.30		
LOCKHEED ARCTERI	12 2140	2150	2142	S08 E22			1-	2					
	13 0800	0845	NO FLARE	PATROL		36 D	1	2		1.16	1.23		25
KODAIKNL CLIMAX	13 0853 E	0929 D		S09 E17	6416		1-	2					
	13 0859 E	0930		N09 E16			1-	3		.80	.80		
SAC PEAK HONOLULU	13 1030	1115	NO FLARE	PATROL			1-	2		4.13	4.04		
	13 2112	2135 D	2119	S07 E13	6416	82	1-	3		2.37	2.37		
SAC PEAK HONOLULU	13 2123	2234	2123	S08 E14		92	1	2		2.37	2.37		
	13 2114	2246	2130	S11 E13	6416		1	2					G-SUF

# SOLAR FLARES

MAY 1962

IIIc

OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX.	M-MATH PLACE REGION				TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	
SAC PEAK MCMATH LOCKHEED LOCKHEED LOCKHEED LOCKHEED	04	1720	1735	N09 W53	6403	1-	1-	2	1724	.21	.27	17
	04	1721	1739	N10 W54		1-	1-	2	1732	.30	.60	20
	04	1724	1738	N16 E90		1-	1-	2	1838	.30	1.50	20
	04	1823	1847	N13 E90		1-	1-	2	2016	.20	1.00	20
	04	2043	2049	N11 E90		1-	1-	2	2045	.20	1.00	20
BUCHAREST CAPRI S MCMATH MCMATH SAC PEAK LOCKHEED MCMATH LOCKHEED SAC PEAK MCMATH	05	0657	0721	N15 E85	6412	1	1	3	0901	1.10	1.20	
	05	0852	0903	N18 E10		1-	1-	3	1315	.30	.50	
	05	1314	1327	N10 W66	6403	1-	1-	2	1332	.30	1.00	
	05	1322	1400	N11 E80	6412	1-	1-	1	1539	.20	.70	
	05	1525	1547	N11 E76		1	1	3	1601	2.85	2.85	18
	05	1553	1618	N17 E10	6411	1-	1-	2	1559	1.50	1.50	20
	05	1554	1616	N16 E09		1-	1-	1	1902	1.20	1.20	
	05	1556	1608	N18 E08	6411	1	1	2	1849	1.10	2.00	10
	05	1843	1926	N13 W67	6403	1	1	3	1849	1.86	3.36	20
	05	1845	1929	N10 W68		1-	1-	1		.40	1.20	
BUCHAREST SAC PEAK	06	0855	0901	N15 E65		1-	1-	3		.35	1.40	17
	06	1348	1408	N12 W77	6403	1	1	3			.80	
BUCHAREST BUCHAREST CAPRI S SAC PEAK	07	0045	0300	NO FLARE	PATROL							
	07	0315	0345	NO FLARE	PATROL							
	07	0445	0500	NO FLARE	PATROL							
	07	0710	0720	0715	N15 E50	1-	1-	2	0831	.60	1.90	15
	07	0745	0800	N20 W20		1	1	3			1.20	
SAC PEAK	07	0825	0835	0827	N15 E53	10	1				3.30	
	07	0825	0839	N12 E56	6412	1-	1-	3			1.20	
	07	1000	1030	NO FLARE	PATROL							
	07	2050	2100	2052	N15 E46	10	1	1		.29	.35	
	08	0200	0300	NO FLARE	PATROL							
SAC PEAK	08	0315	0445	NO FLARE	PATROL							
	08	1257	1306	1259	N16 E30	9	1	3		.35	.37	16
	09	0612	0630		N14 E27	18	1+				6.00	
	09	0614	0623		S17 W24	15	1-				2.50	
	09	0700	0715		S18 W26	15	1-	3			1.50	20
WENDEL WENDEL BUCHAREST LOCKHEED MCMATH SAC PEAK SAC PEAK	09	1815	1853	1830	N13 E21	1-	1-	2	1830	1.50	1.00	
	09	1819	1850	1825	N13 E22	1-	1-	1	1825	.80	2.02	17
	09	1819	1851	1839	N13 E21	32	1-	3		.56	.76	17
	09	2025	2037	2029	N20 W49		1-	3				
	10	0300	0430	NO FLARE	PATROL							
BUCHAREST SAC PEAK CLIMAX SAC PEAK SAC PEAK	10	0802	0830	0811	S17 W39	28	1	2			2.10	18
	10	1541	1553	1546	S19 W43		1-	3		.43	.52	
	10	1733	1815	1738	S20 W44		1-			.10	.10	
	10	1838	1855	1846	S21 W47	17	1	3		2.52	3.09	19
	10	1905	1929	1909	S20 W47	24	1	3		2.45	3.03	21

COMMERCE - STANDARDS - BOULDER

SOLAR FLARES

MAY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT		
		START	END	APPROX. LAT.	MER DIST.				MCNATH PLACE REGION	TIME UT	MEAS AREA Sq Deg.	CORR. AREA Sq Deg		MAX WIDTH H <sub>p</sub>	MAX INT. °
[ ] SAC PEAK	MAY 1962														
	27	1918	1923	1920	N12 W21		1-	3			.52	.50		16	Slow S-SWF
27	1923	1931	1928	N13 W22		1-	3			.14	.12		15		
27	2300	2400	NO FLARE	PATROL											
[ ] MCNATH	28	0000	0045	NO FLARE	PATROL										
	28	0115	0130	NO FLARE	PATROL										
	28	1258	1311	1302	S05 W15	6427	1-	3	1302		.30	.30			
	28	1555	1725	1641 U	S16 E77	6432	2	2	1605		2.41	5.55		17	
	28	1558	1615	1605	S15 E78	6432	1-	2	1640		.30	1.50			
[ ] MCNATH	28	1629	1720	1640	S15 E78	6432	1	2	1640		1.50	3.00			
	28	1704	1724	1707	N12 W15	6428	1-	2	1707		.20	.20			
[ ] CLIMAX	28	1707	1740		N12 W14		1-	2	1710		1.30	1.30			
	28	1811	1824	1816	N11 W15	6428	1-	2	1816		.20	.20			
[ ] HONOLULU	28	1900	1918	1902	N12 W16		1-	3	1902		1.55	1.55			
	28	2125	2208	2133	N15 W20	6428	1-	2	2158		1.20	1.30			
[ ] MCNATH	28	2125	2208	D											
[ ] HONOLULU	28	2132	2230	2200	N14 W21	6428	1-	2	2200		2.68	2.68		17	
[ ] SAC PEAK	28	2153	2202	2159	N12 W22		1-	1	2200		1.28	1.32			
[ ] CAPRI S	29	0245	0315	NO FLARE	PATROL										
	29	0545	0600	NO FLARE	PATROL										
	29	0857	0752		N15 W38		1-	3	0704		.90	1.20			
	29	0830	0845	D	N13 W42	6426	1	3	0835						
	29	0830	0849	D	N15 W38		1-	3	0832		1.20	1.60			
[ ] ONDREJOV	29	0833	0839	D	N14 W38	6426	1	1	0834				2.30		
	29	0934	0949		N14 W39		1-	3	0936		.80	1.00			
	29	1759	1830	1804	N13 W48	6426	1	3			2.72	3.53		20	
	29	1801	1824	1804	N14 W49	6426	1	2	1804		1.00	2.20			
	29	1802	1808	1802	N16 W49		1-	3	1802		1.00	1.30			
[ ] IKOMASAN	29	2345	0010	D	N13 W45	6426	1	3	2347		2.06			90	
[ ] ONDREJOV	30	0530	0545	NO FLARE	PATROL										
	30	0751	0821	D	N13 W51	6426	1	2	0800				2.60		
	30	0752	0808	0757	N13 W53	6426	1	1	0757		1.00	1.00			
	30	0758	0812	D	N15 W55	6426	1	3			3.00	3.00			
	30	0809	0811		S08 W38	6427	2	1	0809		2.00	2.00			
[ ] WENDEL	30	0810	0812	D	S06 W39	6427	2	3			3.00	3.00			
	30	0810	0820		S09 W38	6427	1	3	0814				2.30		
	30	1351	1358	1353	S12 W41		1-	2			.29	.33		15	
	30	1358	1408	D	N16 W55		1-	1			.50	.60			
	30	1627	1645	1632	S11 W43		1-		2321		.82		1.18	110	
[ ] IKOMASAN	30	2318	2325	D	S07 W42	6427	1								
[ ] IKOMASAN	31	0030	0050	D	S07 W42	6427	1		0030		.82		1.34	120	
	31	0156	0215	D	S10 W45		1-		0158		.72		.86	80	
	31	0652	0658	D	S07 W43		1-	3	0653		.80	1.10			
	31	1050	1301	D	N13 W66	6426	2	2	1127		2.20	5.50			
	31	1056	1211	D	N14 W66	6426	2	2	1147				2.60		
[ ] ONDREJOV	31	1056	1211	D	N14 W66	6426	2	2							
[ ] WENDEL	31	1057	1300	D	N15 W68	6426	2	2							
[ ] MCNATH	31	1242	1319	D	N14 W70	6426	1-	1	1242		.30	1.20		G-SWF	
[ ] SAC PEAK	31	1254	1340	U	N15 W70		1-	3			.85	1.53		17	

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OBSERVATORY	DATE	OBSERVED TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT. MER. DIST.	MC-MATH PLACE REGION				TIME — U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H <sub>g</sub>	
MCMATH SAC PEAK LOCKHEED	18 MAY 1962	1958	2015	2005	S08 W57	6416	1-	2	2005	.60	1.20		17
	18	2001	2007	2004	S08 W58		1-	3		.85	1.16		20
	18	2138	2145	2140	S05 W54		1-	2	2140	.20	.30		
SAC PEAK	19	0200	0415	NO FLARE	PATROL		1-	3		.14	.25		16
	19	1538	1547	1541	S12 W70								
	19	1815	1830	NO FLARE	PATROL								
SAC PEAK	19	1828	1912	1856	N05 E42	6424	1	2		2.41	2.74		19
	19	1855	E 1945	D	N05 E42	6424	1-	2	1900	.80	1.40		20
	19	1900	E 1922		N05 E41		1-	2	1905	1.10	1.30		20
LOCKHEED	19	1905	E 1922		N05 E41		1-	2	1920	.30	1.50		10
	19	1915	1927	1920	N11 E90		1-	2	2355	.40	.40		10
	19	2349	0009	2355	N05 E36		1-	2		.29	.32		17
HONOLULU	20	0032	0032	D	N03 E39		1-	1	0032	.29	.32		
	20	0200	0215	NO FLARE	PATROL								
	20	0300	0345	NO FLARE	PATROL								
SAC PEAK	20	0630	0715	NO FLARE	PATROL								
	20	0800	0830	NO FLARE	PATROL								
	20	0845	1200	NO FLARE	PATROL								
SAC PEAK	20	2035	2048	2040	N06 E28		1-	3		.27	.27		
	21	0230	0315	NO FLARE	PATROL								
	21	1022	E 1106	D	N14 E68	6426	2	3	1100	1.00	5.00		
ARCTRI CAPRI S	21	1054	1107		N18 E73	6426	2	3	1055	.58	1.38		
	21	1057	1059		N12 E62		1-	2					
	21	1211	E 1217	D	N16 E58		1-						
WENDEL CAPRI S	21	1438	E 1500	D	N16 E75	6426	1	2	1446	.80	3.00		
	21	1441	1500	D	N18 E61		1-	1	1600	.80	1.80		10
	21	1557	1605	1600	N13 E62		1-	1	1600	.40	1.30		
LOCKHEED	21	1619	1628	1621	S08 E83	6427	1-	2	1621	.40	1.30		
	21	1930	1952		S08 E80	6427	1-	2	1932	.20	.70		10
	21	2040	2052	2044	S10 E80		1-	1	2044	.30	.90		17
SAC PEAK	21	2041	2048	U 2042	S11 E89		1-	3	2045	.17	.30		20
	21	2043	2052		S10 E80	6427	1-	3	2045	.20	.70		
	21	2145	2158	2153	S08 E80		1-	3	2152	.31	1.50		
MCMATH	21	2145	2205	D	S08 E79	6427	1-	2	2152	.30	1.50		
	22	0130	0215	NO FLARE	PATROL								
	22	0300	0400	NO FLARE	PATROL								
IKOMASAN	22	0545	0556		S08 E75	6427	1		0554	1.03	.90		95
	22	0645	0715	NO FLARE	PATROL								
	22	0930	0945	NO FLARE	PATROL								
HONOLULU	22	2226	E 2250	2228	N11 E49		1-	2	2228	.62	.79		
	23	0200	0300	NO FLARE	PATROL								
	23	0330	0400	NO FLARE	PATROL								
WENDEL	23	0645	0715	NO FLARE	PATROL								
	23	0808	E 0826	D	N17 E41		1-						
	23	0808	E 0832	D	N15 E48		1-						
CAPRI S	23	0930	0945	NO FLARE	PATROL								
	23	0952	E 1011		N13 E43		1-	2	0957	.70	1.00		



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OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS			PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX. PHASE	APPROX. LAT.	MER DIST				MC-MATH PLACE REGION	TIME U T	MEAS AREA Sq. Deg.		CORR AREA Sq. Deg.
[ ] WENDEL ARCETRI LOCKHEED [ ] HONOLULU	MAY 1962	23	0952	1026		N11 E39	6426	34	1	3	0953	4.00		
		23	0953 E			N15 E35	6426		1-	3	2320	.80		10
		23	2315	2330	2320	S08 E51			1-	2	2320	.62		
		23	2320	2324	2320	S09 E51			1-	2	2320			
[ ] HONOLULU	24	0730	0800	NO FLARE	PATROL									
	24	2315	2330	NO FLARE	PATROL									
[ ] HONOLULU	25	0006	0020	0010	N04 E21				1-	3	0010	.25		
	25	0130	0200	NO FLARE	PATROL				1-		0200	1.13		90
[ ] IKOMASAN	25	0200	0215	D	N16 E14									
	25	0245	0400	NO FLARE	PATROL									
[ ] CAPRI S	25	0941 E	1042	D	S08 E44				1-	3	0951	1.30		
	25	1250	1301	1253	S10 E31		6427		1-	2	1253	.20		
[ ] SAC PEAK	25	1820 U	1855	U	S08 E31				1-	3	1843	1.11	1.16	17
	25	1821	1915	D	S10 E28		6427		1-	1	1843	1.50	1.80	10
[ ] LOCKHEED	25	1835 E	1910	U	S08 E29				1-	1	1850	.60	.60	10
	25	2002	2018	U	N15 E12				1-	1	1850	1.44	1.42	19
[ ] HONOLULU	25	2004	2018	2010	N16 E12				1-	3	2010	1.40	1.40	
	25	2005	2025	2010	N14 E11		6426		1-	2	2010	1.30	1.40	
[ ] MC-MATH	25	2056	2103	D	S08 E22		6427		1-	2	2058	.50	.50	
	25	2355 E	0006	D	N15 E05				1-	2	2355	.52	.52	100
[ ] IKOMASAN	26	0003	0021	D	S07 E21		6427	18 D	1		0005	1.86		.86
	26	1100	1215	NO FLARE	PATROL									.90
[ ] CLIMAX	26	1228	1234	1229	S06 E16				1-			.50	.50	120
	26	1606	1614	1607	S10 E16				1-	3		.27	.25	17
[ ] SAC PEAK	26	1626	1637	1628	N20 W02		6426	11	1	3		2.10	2.06	17
	26	1713 E	1720	D	S06 E14				1-	3				
[ ] WENDEL	26	1715 E	1733	D	N20 W08		6426	18 D	1			4.00		
	26	1842	1907	1844	S12 E10				1-	3		.52	.50	17
[ ] SAC PEAK	26	2051	2058	2056	S08 E12				1-	3		.91	.87	18
	26	2304	2318	2310	S06 E10				1-	3	2310	.82	.82	
[ ] HONOLULU	26	2305	2318	2307	S07 E11				1-	2	2307	.50	.50	10
	26	2306	2307	D	S08 E12				1-	3		.66	.64	18
[ ] HONOLULU	27	0110	0114	0110	N17 W13				1-	3	0110	.72	.72	
	27	0156	0200	D	S08 E11				1-	2	0158	.62	.62	
[ ] HONOLULU	27	0200	0315	NO FLARE	PATROL									
	27	0400	0545	NO FLARE	PATROL									
[ ] WENDEL	27	0604 E	0614	D	S09 E08				1-			.90	.90	
	27	0646	0729	D	S07 E10				1-	3	0717			
[ ] CAPRI S	27	1022 E	1031	D	N15 W15				1-					
	27	1230	1247	1235	S08 E05		6427		1-	2	1235	.70	.70	
[ ] MC-MATH	27	1511	1522	1518	S12 E00				1-	3		1.55	1.51	19
	27	1512 E	1522	D	S11 E01				1-	3				
[ ] WENDEL	27	1514	1524	1519	S10 W01		6427	9	1-	1	1519	.80	.80	
	27	1515	1524	1524	S10 E01		6427		1-	1	1518	.39	.37	
[ ] ONDREJOV	27	1527	1537	1533	S06 W02				1-	3				2.30
	27	1527	1537	D	S04 E01				1-	3				
[ ] SAC PEAK	27	1527	1537	1533	S06 W02				1-	3				
	27	1527	1537	D	S04 E01				1-	3				
[ ] WENDEL	27	1527	1537	1533	S06 W02				1-	3				
	27	1528	1539	1533	S05 W02		6427		1-	1	1533	.20	.20	



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OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX. LAT. MER. DIST.	MC-MATH PLAGE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH He	MAX. INT. % <sub>p</sub>
→ LOCKHEED	MAY 1962												
	13	2118 E	2219	S07 E11			1-	1	2134	•90	•90		30
	14	0100	0415	NO FLARE									
	14	0430	0515	NO FLARE									
	14	0530	0600	NO FLARE									
MCMATH SAC PEAK SAC PEAK SAC PEAK HONOLULU	14	1100	1200	NO FLARE									
	14	1200 E	1250 D	S08 E03	6416		1-	2	1203	1•00	1•00		
	14	1600	1607	1603	N22 E42		1-	3		•14	•17		15
	14	2040	2053	S08 W01			1-	3		•72	•70		15
	14	2301	2318	S09 W02			1-	3		•43	•41		18
WENDEL MCMATH	14	2310 E	2318	S07 W01			1-	1	2310	•82	•82		
	15	0115	0130	NO FLARE									
	15	0145	0715	NO FLARE									
	15	2315	2400	NO FLARE									
	16	0000	0600	NO FLARE									
CAPRI S MCMATH MCMATH MCMATH LOCKHEED	16	0700	0715	NO FLARE									
	16	1153 E	1320	N08 W08	6417	87 D	1	2	2200	•40	4•00		
	16	2159	2206	S08 W28	6416		1-				•40		
	16	2330	2400	NO FLARE									
	17	0000	0600	NO FLARE									
CAPRI S MCMATH MCMATH MCMATH LOCKHEED	17	0945	1000	NO FLARE									
	17	1137 E	1205	S06 W38			1-	3	1143	1•00	1•30		
	17	1201 E	1209	S09 W38	6416		1-	2	1201	•50	•60		
	17	1345	1440	S08 W40	6416		1-	2	1400	•60	•70		
	17	1421	1430	N07 E65	6424		1-	2	1425	•50	1•10		
LOCKHEED SAC PEAK MCMATH HONOLULU LOCKHEED	17	1706	1714	S06 E63			1-	2	1708	•20	•30		10
	17	2043	2055	S05 W44			1-	2	2046	•30	•40		10
	17	2046	2051	S08 W44			1-	3	2046	1•26	1•46		17
	17	2046	2101	S08 W44	6416		1-	2	2050	1•40	2•00		
	17	2048	2054	S05 W41	6416	15	1	2	2048	3•30	3•80		
MCMATH LOCKHEED MCMATH LOCKHEED	17	2137	2145	S07 W44		6 D	1-	2	2140	•30	•40		10
	17	2139	2147	S09 W45	6416		1-	2	2141	•30	•40		
	17	2345	2353	S06 E05			1-	2	2347	•10	•10		10
	18	0045	0100	NO FLARE									
	18	0145	0230	NO FLARE									
MCMATH MCMATH SAC PEAK ONDRÉJOV SAC PEAK	18	0245	0630	NO FLARE									
	18	1100	1130	NO FLARE									
	18	1233	1253	1235	S08 W51	39	1-	2	1235	•60	1•20		
	18	1409	1448	1423	S07 W52		1-	2	1423	1•60	2•50		
	18	1414	1452	1423	S07 W53		1-	3		1•40	1•84		17
MCMATH CAPRI S LOCKHEED LOCKHEED	18	1530	1546	1534	S12 W58	13 D	1	3	1429	2•27	3•11		22
	18	1532	1609	1535	S10 W55	16	1+	2	1535	2•20	4•10		
	18	1535 E	1549	S10 W55	6416	37	1+	2	1538	•80	1•30		
	18	1607 E	1630	1614	S05 W65	14 D	1-	2	1614	•30	•50		10
	18	1853	1900	1855	N06 E48		1-	2	1855	•40	•50		10
MCMATH	18	1855	1900	1857	N06 E48		1-	2	1857	•30	•40		
	18	1855	1900	1857	N06 E48		1-	2	1857	•30	•40		

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OBSERVATORY	DATE MAY 1962	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX.	MATH- PLACE REGION					TIME	MEAS AREA Sq Deg	CORR AREA Sq Deg	MAX WIDTH H <sub>g</sub>	
					LAT.	MER DIST								
SAC PEAK	31	1449	1459	N15 W78			1-	3		.37	.85		16	
SAC PEAK	31	1615	1624	N16 W79			1-	3		.41	.93		15	
SAC PEAK	31	2046	2056	N16 W80			1-	2		.43	.87		17	
SAC PEAK	31	2056	2106	S11 W59			1-	2		.43	.64		16	
IKOMASAN	31	2337	2352 D	N15 W72			1-		2340	.72		.98	70	
														COMMERCE - STANDARDS - BOULDER
ATHENS	ATHENS, GREECE			HONOLULU			HAWAII, USA		NERA					
BAKOU	PIRCULI, USSR			IKOMASAN			KYOTO, JAPAN		NETHERLANDS					
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE			KIEV KO			KIEV GAO, USSR		KRASNAYA PAKHRA, USSR					
CAPRI F	CAPRI, ITALY (GERMAN)			KIEV KY			KIEV UNIVERSITY, USSR		SAC PEAK					
CAPRI S	CAPRI, ITALY (SWEDISH)			LOCKHEED			LOS ANGELES, CALIF., USA		SALTSTJÖBADEN					
CRIMEE	SIMEIZ, USSR			MCWATH			MCWATH-HULBERT		SCHAUINS					
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND			MOSCOU			PONTIAC, MICH., USA		TASHKENT					
							MOSCOW-GAISH, USSR		WENDEL					

COMMERCE - STANDARDS - BOULDER

ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

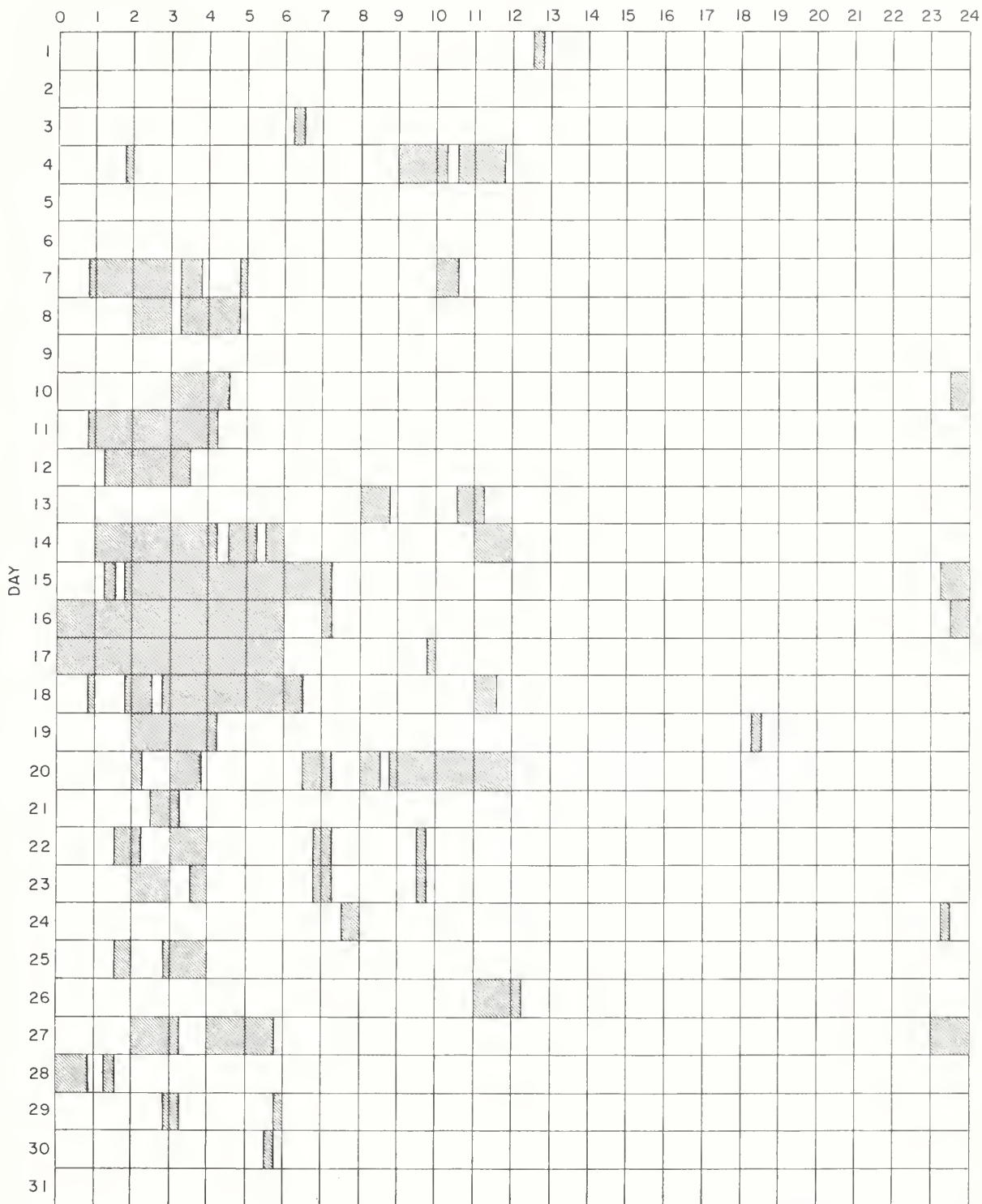
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.

# INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIi

MAY 1962

HOURLY-UT



COMMERCE - STANDARDS - BOULDER

Stations Include:

Arcetri	Herstmonceux	Istanbul	Mitaka
Bucharest	Honolulu	Kodaikanal	Ondrejov
Capri (Swedish)	Huancayo	Lockheed	Sacramento Peak
Climax	Ikomasan	McMath-Hulbert	Wendelstein

# SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE	OBSERVED TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT	
		START	END	MAX PHASE	APPROX LAT.	MCMATH PLACE REGION	TIME — U T				MEAS. AREA Sq Deg	CORR. AREA Sq Deg	MAX WIDTH H <sub>o</sub>	MAX INT. % <sub>s</sub>		
VOROSHILOV	01	0205	0209	0207	N09 W35				1-	2		.18			89	S-SWF
VOROSHILOV	01	0246	0250	0246	N09 W35			39	1-	2		.44			66	
— NIZMIR	01	0901	0940	0907	N08 E33	6334			1			3.16			65	
— NIZMIR	01	0922	1034	0936	N11 E38				1-			1.34			70	
CAPRI F	01	0920	E 1110	D 1019	N10 W38	6326	110	D	2	1	1019	9.00				
UCCLE	01	1345	1407	D 1347	N08 W45				1-	2	1347					
CLIMAX	01	1549	E 1730	1659	N09 W41	6326	101	D	1			2.10	2.30			
CLIMAX	01	1817	1830	1820	N10 W41				1-			.60	.70			
CLIMAX	01	2334	2340	2337	N10 W24				1-			.30	.40			
—	02	0600	0615	NO FLARE	PATROL											
— CAPETOWN	02	1247	1319	D 1250	N10 W49			63	D	1-	1250	.90	1.40			
— UCCLE	02	1247	1350	D 1255	N08 W50	6326			1	2	1255	2.50	3.00			
— UCCLE	02	1358	1409		N08 W50				1-	3						
— UCCLE	02	1359	1434		N10 W57				1-	3						
— UCCLE	02	1414	1417		N07 E36				1-	3						
— UCCLE	02	1502	1517		N15 W46				1-	3						
—	03	0615	0630	NO FLARE	PATROL											
—	03	0645	0800	NO FLARE	PATROL											
— CAPETOWN	03	1213	1222	1214	N10 W63				1-		1214	1.10	2.60			
— CAPRI F	03	1220	E 1230	D 1233	N11 W66	6326	30	D	2	2	1233	5.00				
— CAPETOWN	03	1223	1239	D 1237	N10 W73	6326	16	D	1		1237	.70				
— CLIMAX	03	2126	2140	2130	N09 W80	6326	14		1			.90	2.40			
VOROSHILOV	03	2347	2359	2350	N12 W85	6326	12		2	2		1.62			102	
—	04	0536	0554	0538	N11 W88	6326	18		1		0538	.62			59	
— ALMA ATA	04	0810	0817	0811	N10 W78	6326	7		1		0811	.62			50	
— CAPETOWN	04	1156	1235	1204	N12 W90	6326	39		1		1204	.60				
— CAPETOWN	04	1333	1357	1346	N11 W79				1-		1346	.40				
— CAPETOWN	04	1355	1417	D 1402	N12 W90	6326	22	D	1		1402	.60				
—	04	1430	1445	NO FLARE	PATROL											
— CLIMAX	04	1500	E 1526	D 1513	N10 W80				1-			.40	1.10			
— CLIMAX	04	1720	1739	D 1732	N10 W80				1-			.40	1.10			
— CLIMAX	04	2049	2104	2055	N13 W90	6326	15		2			1.10	5.50			
—	05	0741	0804	0749	N13 W90	6326	23		1		0749	.40				
— CAPETOWN	05	1009	1042	1026	N11 W90	6326	33		1		1026	.20				
—	06	0530	0630	NO FLARE	PATROL											
—	06	1052	1124	1058	N07 W18				1-		1058	1.80	1.90			
— MEUDON	06	1057	1115		N06 W22				1-			.40	.40			
— CLIMAX	06	1624	1632	1626	N08 W10				1-							
—	07	0644	0656	0646	N06 W30				1-		0646	.72			57	
— ALMA ATA	07	0644	0656	0646	N06 W30				1-							
—	08	2245	2400	NO FLARE	PATROL											
—	09	0000	0030	NO FLARE	PATROL				1-	3						
— UCCLE	09	0939	0943		N05 W50				1-	3						
— UCCLE	09	1517	1526	D	N05 W65				1-	3						

# SOLAR FLARES

FEBRUARY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME			LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS. COND.	MEASUREMENTS				MAX WIDTH H <sub>a</sub>	MAX INT. F <sub>2</sub>	PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX PHASE	APPROX. LAT.	MER DIST	M-MATH FLARE REGION				TIME U T	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.				
ALMA ATA CAPETOWN	09 FEB 1962	2245	2315	NO FLARE	PATROL												
	09	2345	2400	NO FLARE	PATROL												
	10	0000	0015	NO FLARE	PATROL												
	10	0115	0145	NO FLARE	PATROL												
	10	0615	0625	0616	N07 W69		6334	10	1		0616	.80			61		
	10	0912	0921	0917	N06 W68				1-		0917	.70	2.00				
	10	2215	2330	NO FLARE	PATROL												
	10	2341	2347	2343	N06 W90		6334	6	1			.60	3.00				
	11	1031	E 1048		N04 W88				1-	3							
	11	1051	1124	D	N04 W88				1-	3							
CLIMAX	11	1400	1500	NO FLARE	PATROL												
	11	1455	E 1512		N16 E90				1-				2.00				
	11	1516	1534	1524	N15 E90		6344	18	1		1456	.40	4.00				
	11	1545	1601	1552	N15 E90		6344	16	1			.80	3.50				
	11	2330	2400	NO FLARE	PATROL												
	12	0000	0015	NO FLARE	PATROL												
	12	1615	1630	NO FLARE	PATROL												
	13	1330	1445	NO FLARE	PATROL												
	13	1500	1515	NO FLARE	PATROL												
	13	1545	1615	NO FLARE	PATROL												
UCCLE	13	1630	1645	NO FLARE	PATROL												
	13	2300	2315	NO FLARE	PATROL												
	14	0852	0857		N15 E70				1-	3							
	14	1645	1700	NO FLARE	PATROL												
	14	1745	1800	NO FLARE	PATROL												
	14	1815	1930	NO FLARE	PATROL												
	14	1945	2100	NO FLARE	PATROL												
	14	2230	2300	NO FLARE	PATROL												
	15	2245	2400	NO FLARE	PATROL												
	16	2200	2400	NO FLARE	PATROL												
UCCLE	17	0000	0030	NO FLARE	PATROL												
	17	0800	0815	NO FLARE	PATROL												
	17	0830	0845	NO FLARE	PATROL												
	17	0956	1003		S10 E70				1-	3							
	17	1015	1045	NO FLARE	PATROL												
	17	1200	1315	NO FLARE	PATROL												
	18	0730	0745	NO FLARE	PATROL												
	18	0845	0900	NO FLARE	PATROL												
	18	1015	1030	NO FLARE	PATROL												
	18	1145	1415	NO FLARE	PATROL												
19	0545	0700	NO FLARE	PATROL													

SOLAR FLARES  
FEBRUARY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM. POR- TANCE	OBS. COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APOX. LAT				MER DIST.	M-CATH PLAGE REGION	TIME U T	MEAS. AREA Sq Deg	
CAPRI F CAPRI F CAPETOWN CAPETOWN CAPRI F CLIMAX	19 FEB 1962	0912 E	0917	0912	N13 E81	6352	1	2	0913	1.00			Slow S-SWF
	19	0912 E	0919	0912	S08 E76	6351	1	2	0913	2.00			
	19	1146	1157	1147	S09 E85	6351	1		1147	.60			
	19	1222	1316 D		N12 E82	6352	1		1316	1.60			
	19	1245 E	1505 D	1245	S08 E78	6351	2	2	1246	5.00			
	19	1811	1825	1819	N10 E90	6352	2			1.20	6.00		
ALMA ATA TACHKENT	20	0548	0619	0556	S09 E82	6351	2	2	0556	2.06			S-SWF
	20	0548	0624	0600	S11 E80	6351	2	2	0600	6.11	6.10	3.50	
	20	2245	2300	NO FLARE	PATROL								
	20	2315	2400	NO FLARE	PATROL								
CAPETOWN CAPETOWN CAPETOWN UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE	21	0759	0812	0800	S09 E59		1-		0800	.90	1.80		
	21	0815	0850	0821	S09 E59	6351	1		0821	1.70	3.40		
	21	0916	0926	0917	S09 E59	6351	1		0917	1.10	2.20		
	21	1030	1037		S11 E57		1-	3		1.20	2.30		
	21	1122	1124		S10 E23		1-	3					
	21	1141	1150		S11 E57		1-	3	1219	.80	1.50		
	21	1211	1226	1219	S11 E57		1-	3					
	21	1233	1238		S11 E57		1-	3					
	21	1244	1248		S10 E53		1-	3		1.60	2.30		
	21	1323	1326		S10 E54	6351	1			.20	3.20		
	21	1329	1332		S10 E54		1-	3	1430				
	21	1335	1344	1430	S10 E54	6351	1						
	21	1426	1433		S10 E53		1-	3					
	21	1444	1501 D		S15 E19		1-	3					
	21	1444	1503		N08 E65		1-	3					
	21	1448	1456		S10 E53		1-	3					
	21	1502	1505		S10 E53		1-	3					
	21	1506	1513		S10 E53		1-	3					
UCCLE UCCLE UCCLE UCCLE UCCLE UCCLE	21	1528	1538	1534	N10 E63		1-	3	1533				61
	21	1531	1533 D	1533	S15 E58		1-	3					
	21	1549	1553		S10 E53		1-	3					
	21	1610	1623 D		N14 E60		1-	3					
	21	2300	2400	NO FLARE	PATROL								
	21	2300	2400	NO FLARE	PATROL								
UCCLE UCCLE UCCLE CAPETOWN BAKOU UCCLE UCCLE	22	0545	0600	NO FLARE	PATROL								66
	22	0615	0630	NO FLARE	PATROL								
	22	0645	0715	NO FLARE	PATROL								
	22	0836	0843		N17 E88		1-	3	0854				
	22	0851	0902	0854	N17 E88		1-	3	0853	2.50	4.00		
	22	0851	0901	0853	N12 E53	6352	1	3	0853	1.20	2.20		
CAPETOWN BAKOU UCCLE UCCLE	22	0852	0910	0854	N14 E52	6352	1	2	0854	4.11	7.25		61
	22	0858	0911	0903	N15 E50	6352	1+	3	0903				
	22	0911	1021		N17 E88		1-	3		2.50	3.00		
	22	0947	1010 D	0952	N17 E88	6353	1	3					
UCCLE UCCLE BAKOU CAPETOWN	22	0947	1010 D	0959	N17 E88		1	2	1003	7.75	11.40		66
	22	0950 E	1035	1003	S09 E47	6351	1+	2	1003	2.10	2.90		
	22	0952	1045	1006	S09 E43	6351	1		1006				
	22	1400	1545	NO FLARE	PATROL								
	22	1600	1615	NO FLARE	PATROL								

SOLAR FLARES  
FEBRUARY 1962

OBSERVATORY	DATE	OBSERVED UNIVERSAL TIME		LOCATION			DURA- TION — MINUTES	IM- POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	MAX. PHASE	APPROX.	MATH PLACE REGION				TIME	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH H <sub>o</sub>	
CLIMAX	FEB 1962													
	22	1740 E	1751 D		S06 E40	6351	11 D	1		1751	3.10	3.40		
	22	1938	1952	1941	S06 E38			1-			1.10	1.20		
	22	2012	2035	2017	S06 E38			1-			1.30	1.40		
	22	2033	2035 D		N10 E42			1-		2035	.20	.20		
	22	2200	2204 D	2204	N15 E45			1-			.30	.30		
	23	0446	0448	0446	S09 E33			1-		0446	.61			63
ALMA ATA	23	0615	0645	NO FLARE	PATROL			1-						
UCCLE	23	0939	0951		S12 E35			1-	3					
UCCLE	23	1219	1223		N13 E33			1-	3					
UCCLE	23	1300	1304		S12 E28			1-	3					
UCCLE	23	1315	1345	NO FLARE	PATROL			1-						
UCCLE	23	1351	1355		N13 E36			1-	3					
UCCLE	23	1353	1415		N10 E38			1-	3					
UCCLE	23	1416	1419		N12 E30			1-	3					
UCCLE	23	1429	1432		N10 E38			1-	3					
UCCLE	23	1521	1533		S12 E30			1-	3					
UCCLE	23	1521	1543		N13 E34			1-	3					
UCCLE	23	1539	1551		S12 E36			1-	3					
UCCLE	23	1539	1554	1541	N10 E33			1-	3					
UCCLE	23	1556	1610 D	NO FLARE	S12 E32			1-	3					
UCCLE	23	2300	2345	NO FLARE	PATROL									
ALMA ATA	24	0045	0130	NO FLARE	PATROL									
	24	0615	0630	NO FLARE	PATROL									
	24	0720	0730 D	0724	S12 E22	6351	4 D	1-		0724	.51	4.00		61
	24	0742 E	0746 D		S10 E19			1-	1	0742				
	24	0852 E	1027		S12 E19			1-	3	1046				
UCCLE	24	1031	1056	1046	S12 E19			1-						
CLIMAX	24	1530	1545	NO FLARE	PATROL			1-			.70	.70		
CLIMAX	24	1620	1635	1625	S13 E10			1-			.40	.40		
CLIMAX	24	1944	1952 D	1947	N20 E44									
CLIMAX	24	2300	2315	NO FLARE	PATROL									
ALMA ATA	25	0453	0503	0454	S09 E06			1-		0454	.80			61
	25	2300	2315	NO FLARE	PATROL									
ALMA ATA	26	0411	0412	0412	S12 E02			1-		0412	.61			66
	26	1403	1405		S11 W14			1-	3					
	26	1445	1500	NO FLARE	PATROL									
	26	2100	2115	NO FLARE	PATROL									
	26	2300	2345	NO FLARE	PATROL									
UCCLE	27	0933	0953		N06 E60			1-	3					
UCCLE	27	1009	1026	1019	S12 W25			1-	3	1019	1.00	1.50		
ALMA ATA	27	1012	1015	1014	S15 W27			1-		1014	1.01			68
ALMA ATA	27	1018	1026	1022	S15 W27			1-		1022	1.41			74
UCCLE	27	1136	1145		S14 W27			1-	3					
UCCLE	27	1200	1205		S18 W12			1-	3					
UCCLE	27	1233	1233		S14 W27			1-	3					
UCCLE	27	1259	1309		S14 W32			1-	3					



# SOLAR FLARES

## FEBRUARY 1962

OBSERVATORY	DATE FEB 1962	OBSERVED UNIVERSAL TIME		LOCATION		DURA- TION — MINUTES	IM. POR- TANCE	OBS COND.	MEASUREMENTS				PROVISIONAL IONOSPHERIC EFFECT
		START	END	APPROX LAT.	NEAR DIST.	MC-MATH PLACE REGION			TIME U T	MEAS AREA Sq. Deg.	CORR AREA Sq. Deg.	MAX WIDTH Ha	MAX INT
UCCLE	27	1312	1322	S11	W17		1-	3					
UCCLE	27	1334	1344	S11	W17		1-	3					
UCCLE	27	1358	1402	S11	W17		1-	3					
UCCLE	27	1401	1408	S14	W30		1-	3	1403	2.00	2.40		
UCCLE	27	1410	1414	S11	W17		1-	3	1412				
UCCLE	27	1421	1428	S09	W31		1-	3					
	27	2215	2245	NO FLARE									
TACHKENT	28	0503	0532	S15	W39	6351	29	3		1.92	2.40	1.60	50
ALMA ATA	28	0648	0710 D	S13	W38	6351	22 D	3	0654	2.01			84
TACHKENT	28	0648	0732	S15	W39	6351	44	3	0650	4.37	5.60	2.80	85
CAPETOWN	28	0648	0735	S12	W38	6351	47	3	0654	6.40	8.20		
UCCLE	28	1030	1033	S11	W36		1-	3	1032				
UCCLE	28	1031	1033	S13	W44		1-	3	1032				
UCCLE	28	1039	1044	S14	W44		1-	3					
UCCLE	28	1103	1108	S11	W36		1-	3	1106				
CAPETOWN	28	1149	1219	S13	W37	6351	30	3	1155	4.30	5.40		
UCCLE	28	1149	1221	S13	W40	6351	32	3	1155	3.50	4.20		
CAPRI F	28	1155 E	1200 D	S11	W36	6351	5 D	1	1158	4.00	6.00		
UCCLE	28	1224	1301	S12	W42		1-	3					
UCCLE	28	1358	1343	S12	W40		1-	3					
CLIMAX	28	1807 E	1850 D	S13	W43		1-	3	1340	1.20	1.30		

COMMERCE - STANDARDS - BOULDER

These flare reports are addenda to the February 1962 flares published in CRPL-F 211 March 1962.

ATHENS	ATHENS, GREECE	HONOLULU	HAWAII, USA	NERA	NEDERHORST den BERGH,
BAKOU	PIRGULI, USSR	IKOMASAN	KYOTO, JAPAN		NETHERLANDS
CAPETOWN	ROYAL OBSERVATORY, CAPE OF GOOD HOPE	KIEV KO	KIEV GAO, USSR	NIZMIR	KRASNAYA PAKHRA, USSR
CAPRI F	CAPRI, ITALY (GERMAN)	LOCKHEED	LOS ANGELES, CALIF., USA	SAC PEAK	SACRAMENTO PEAK, N.MEX. USA
CAPRI S	CAPRI, ITALY (SWEDISH)	MC-MATH	MC-MATH-HULBERT	SALTSJÖBADEN	STOCKHOLM, SWEDEN
CRIMEE	SIMEIZ, USSR		PONTIAC, MICH., USA	SCHAUNS	SCHAUNSLAND, GFR
HERSTMONCEU	ROYAL GREENWICH OBSERVATORY, HERSTMONCEUX, ENGLAND	MOSCOU	MOSCOW-GAISH, USSR	TACHKENT	TASHKENT, USSR
				WENDEL	WENDELSTEIN, GFR

ALL VALUES IN THE MAXIMUM INTENSITY COLUMN FOR SAC PEAK ARE ARBITRARY UNITS (0-40) AND FOR LOCKHEED ARE ARBITRARY UNITS (10-40), NOT PERCENT OF CONTINUOUS SPECTRUM.

SEE DESCRIPTIVE TEXT PUBLISHED NOVEMBER 1961 FOR DEFINITION OF CORRECTED AREA VALUES LISTED FOR CLIMAX, HAWAII, LOCKHEED AND SACRAMENTO PEAK.

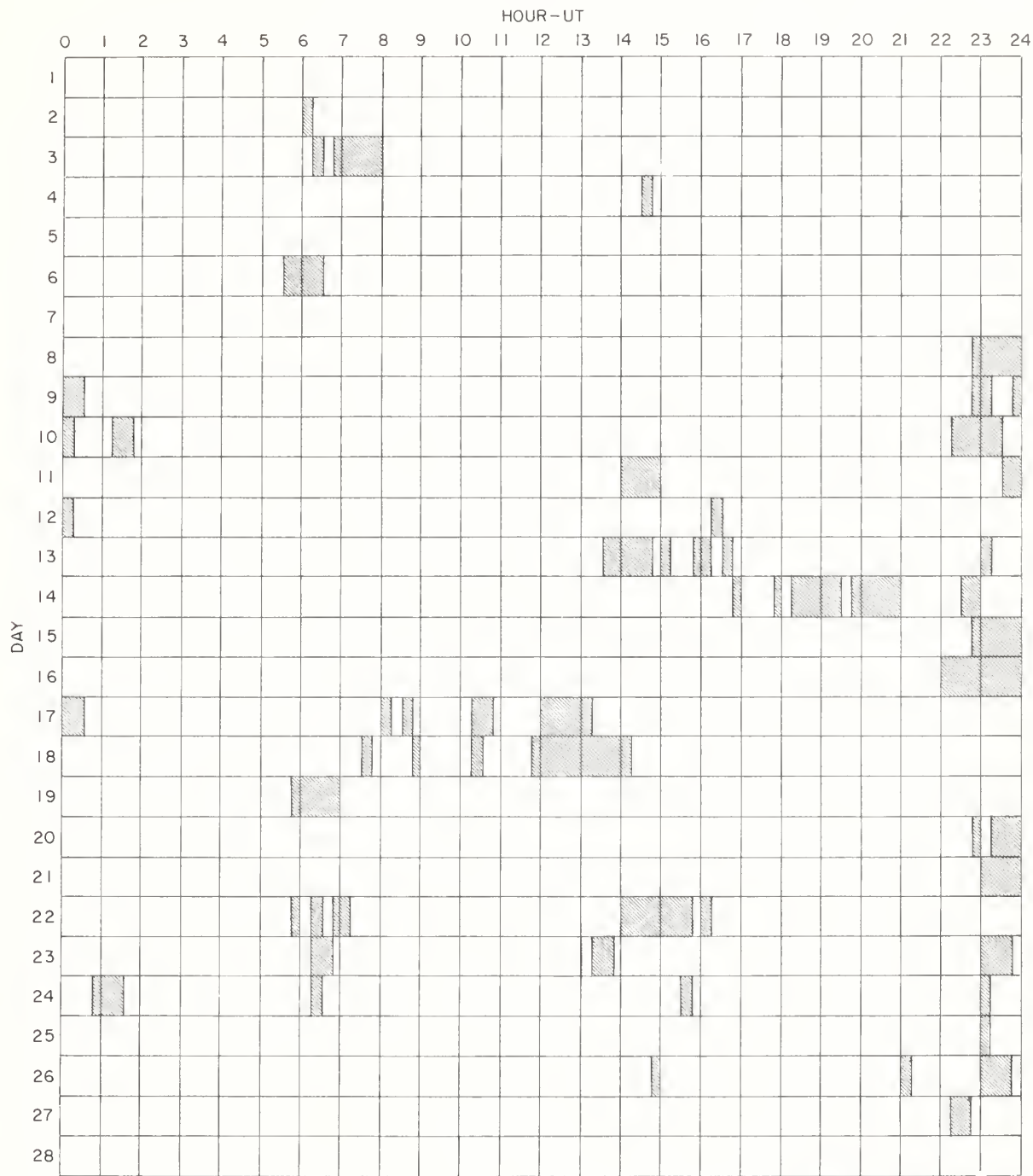
E = LESS THAN D = GREATER THAN U = APPROXIMATE □ = NOT REPORTED.



# INTERVALS OF NO FLARE PATROL OBSERVATIONS

IIIo

FEBRUARY 1962



Stations Include:

Abastumani	Capri (German)	Honolulu	Lockheed	Nizamiah	Uccle
Arcetri	Capri (Swedish)	Huancayo	McMath-Hulbert	Ondrejov	Voroshilov
Bucharest	Climax	Ikomasan	Meudon	Sacramento Peak	Wendelstein
Capetown	Herstmonceux	Kodaikanal	Mitaka	Schauinsland	

## IONOSPHERIC EFFECTS OF SOLAR FLARES

SHORT WAVE RADIO FADEOUTS  
 SUDDEN COSMIC NOISE ABSORPTION  
 SUDDEN ENHANCEMENTS OF ATMOSPHERICS  
 SUDDEN PHASE ANOMALIES  
 SOLAR NOISE BURSTS AT 18 Mc

APRIL 1962

APRIL 1962	UNIVERSAL TIME			SWF TYPE	IMPORTANCE					WIDE SPREAD INDEX	STATIONS	KNOWN FLARE
	START	END	MAX		IMP	ABS	SCNA	SEA	SPA	BUR		
* [ 01	1715	1830	1802	S	1			1			1 A5	1729U
01	1721	1805									5 PR AN BE FM HU MC	
* [ 11	1420			G	1+		1				1 MC	2149
11	1420	1502						1			5 PR BE MC NE	
11	1426	1515U	1434								5 OU A3 A5 A10 NE	
[ 12	2134	2216		G	1+					3	5 HA B0	2149
12	2212	2400						1			3 AN A0	
12	2215	2227	2218								1 TY	
[ 13	0847	0907		S	1+						3 NE OA	0851E
13	0850	0940	0900					2			5 TY NE TR	
[ 14	1903	2030	1930	S	2+				75		5 B0 B0+	1910E
14	1917	1920								2	5 HA B0	
* 14	1917	2100U	1924					2			5 A5 A1 A3 A9 A10 HA	
14	1918	2027									5 BE A0 AN FM HU MC PR WS	
14	1920	2030	1926			30	2				5 HA B0 MC	
[ 15	0524	0550		G	1-			1+			1 OK	0533E
15	0530	0606	0536								1 TY	
[ 15	1715	1800	1720	S	1-			1+	12		5 B0 B0+	1715U
15	1715	1800	1721								5 A9 A1 A5 A10	
15	1720	1755									4 MC PR WS	
16	1700	1100								2	5 B0 HA MA	
* 17	1445	1510	1450					1-			3 A1 A5	1444
[ 18	1750			G	3		2				1 MC	1734
18	1752	1940									5 BE B0 FM MC PR	
[ 19	1934	2040	1937	S	1+			1+			5 A9 A2 A3 HA	1935
19	1935	1950	1938			20	1				5 HA MC	
* 19	1935	2010									5 MC A0 AN BE FM PR	
19	1935	2040	2010						60		5 B0 B0+	
[ 20	2000	2003		S	2					2	5 HA B0	1958
20	2000	2030									5 MC A0 AN BE B0 FM TO WS	
* 20	2000	2035	2004			30	2				5 HA AN B0 MC	
20	2000	2050	2007						92		5 B0+ B0	
20	2001	2050						2			5 HA A1 A3 A9 A10 B0 MC	
[ 21	0202	0219		S	1+						5 TO A0 OK	0203E
21	0203	0223	0210					1			1 TY	
21	0204	0230	0206			20	1				5 HA MA	
21	1920	1926								1	5 HA B0	
[ 21	1920	2045	1925					1+			4 A9 A3	1918
21	2008	2013								1	5 HA B0	2007
* [ 22	1444	1547	1505	S	3			2			5 OU A1 A3 A5 A9 A10 NE	1430
22	1445	1545	1500			20	1				4 B0 MC	
22	1446	1700									5 BE B0 FM HU MC NE PR WS CW**	
25	0211	0215								1	1 HA	
25	2044	2045								1	5 HA B0	
* 26	0122	0125								1	5 HA MA	+ 1205E
26	1212	1247	1217					1			5 OU A1	
[ 27	1410	1520	1426	S	1+				85		5 B0 B0+	1350
27	1410	1526	1420					2			5 OU A1 A2 A3 A5 A9 A10 B0 NE TR	
27	1413	1433									5 BE B0 FM HU MC NE PR SW CW* CW** CW***	
27	1414	1430	1417			30	2				1 B0	
27	2042	2050								1	5 HA B0	
27	2300	2305								3	5 HA B0	
28	2023	2032								1	5 B0 HA	2300
												2023

COMMERCE - STANDARDS - BOULDER

Footnote:

On page IIII in CRPL-F 212 Part B, published April 1962 please add  
 Stations A9 and A10 to the SEA observed February 23, 1962 at 1816 UT.

# SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES

IVa

MAY 1962

ARO-OTTAWA

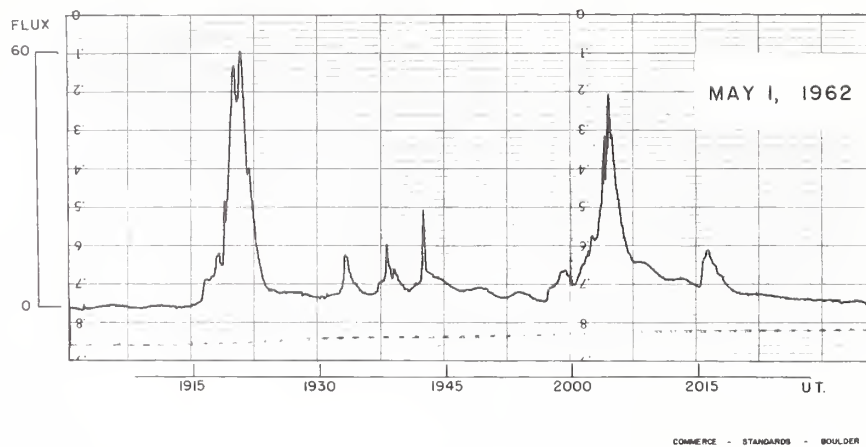
2800 MC

May 1962	Type	Start UT	Duration Hrs:Mins	Maximum			Remarks
				Time UT Max	Peak Flux	Near Flux	
1	3 Simple 3	1240	2 57	1425	4	2.5	
1	Period of Irregular Activity	1915	1 50	1920.5	60	6	
2	2 Simple 2 f	1927.3	3.7	1928.4	12	4	
	4 Post Increase		50		1	0.5	
5	3 Simple 3 A	1845	2 30	1904	3	1.5	
	1 Simple 1	1847.3	0.9	1847.8	5	4	
5	3 Simple 3 A	2132	45	2137	2	1	
	6 Complex	2134	3	2135.2	3.5	1.7	
6	1 Simple 1	2134	3	2135.5	4	2	
12	3 Simple 3	1325	2 05	1337	5	2	
13	3 Simple 3 A f	1849	>4 31	2125	13	-	
	1 Simple 1	2121	3	2123.3	15	6	
	6 Complex f	2129.7	6.6	2130.8	8	4	
14	3 Simple 3 A	1138	3 22	1155	9	4.5	
	6 Complex f	1144	3	1144.5	5	2.5	
	6 Complex f	1147	7.5	1151	9	4.5	
18	3 Simple 3 A f	1413	1 35	1430	3	2	
	2 Simple 2 f	1531.7	5	1532.4	56	11	
24	3 Simple 3	1552	1 23	1626	3	1.5	
25	3 Simple 3	1706	>6 14	1839	8	-	
27	2 Simple 2	1517	2	1517.2	11	4.5	
27	3 Simple 3	1918	>4 02	2150	5	-	
28	3 Simple 3 f	1634	22	1638	3	0.7	
28	3 Simple 3	2129	>1 51	2210	4	-	
29	1 Simple 1	1800	3	1802	5	4	
	4 Post Increase		22		2	1	
31	3 Simple 3 A f	1117	3 21	1258	14	7	
	6 Complex f	1150	46	1203.5	30	17	

COMMERCE - STANDARDS - BOULDER

SELECTED 2800 MC/S SOLAR NOISE BURST  
ARO-OTTAWA, CANADA

MAY 1962

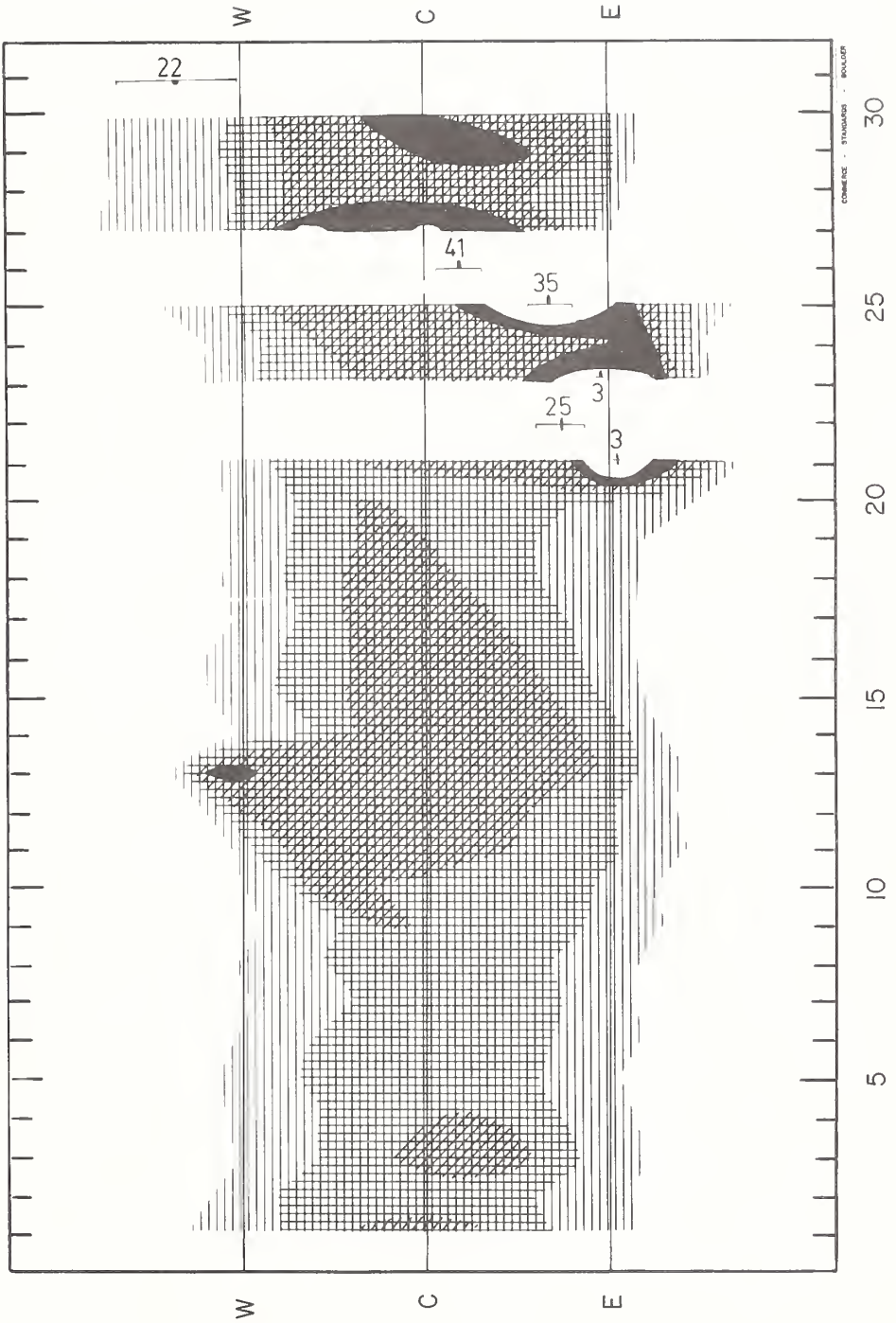


SOLAR RADIO EMISSION  
INTERFEROMETRIC OBSERVATIONS

Nangay

MAY 1962

169 Mc



SOLAR RADIO EMISSION

MAY 1962

BOULDER 108 Mc.

May 1962	Type	Start UT	Time of Maximum UT	Duration Minutes	Intensity
1	9	1918.5	1922.5	18	3
3	3	1118.1	1119.5	2.0	3
5	3	1343.9	1344.5	1.4	3
6	3	1435.1	1437.1	2.3	3
11	3	1620.6	1621.8	1.7	2
13	7	2140	2202	50	1
18	8	1531.5	1535	10.0	3
24	7	1824		451 D	2
25	6	1142 E		854 D	2
26	6	1141 E		458 D	2
26	8	1554.0	1556.0	4.8	3
27	3	1516.0	1516.5	3.5	3
28	3	1641.8	1643.0	3.5	3
31	6	1139 E	1151	101 D	1

COMMERCE - STANDARDS - BOULDER

Errata:

On page IVc, CRPL-F 213 Part B, May 1962 all bursts reported for April 21, 1962 should be deleted. Upon re-examination of the records, it has been decided that those events are associated with local thunderstorms and are not solar radio bursts.

NOMINAL TIMES OF OBSERVATION

MAY 1962

BOULDER 108 Mc.

May 1962	U.T.		May 1962	U.T.	
1	1205-0135		19	1147-2010;	
2	1204-0136			2315-0151	
3	1203-0137		20	1146-0152	
4	1202-0138		21	1145-0153	I 1710-2130
5	1201-0139	I 2240-0050	22	1144-1740	
6	1159-0140		23	1143-0154	
7	1158-0141	I 1105-1345	24	1143-0155	
8	1157-0142	I 2134-2143	25	1142-0156	I 1900-0156
9	1156-0143		26	1141-0157	I 2034-0157
10	1155-1140;		27	1141-0158	I 1141-1310;
	2140-0144				1608-0158
11	1154-0145		28	1140-0159	I 1815-0030
12	1153-0146		29	1140-0159	
13	1152-0146	I 1453-1530;	30	1139-0159	I 1633-1640;
		1758-1810;			1935-1947
		1922-1940	31	1139-0159	I 1725-0159
14	1151-0147	I 1930-2100			
15	1150-0148				
16	1149-0149	I 1149-2200			
17	1148-0149	I 0000-0149			
18	1147-0150				

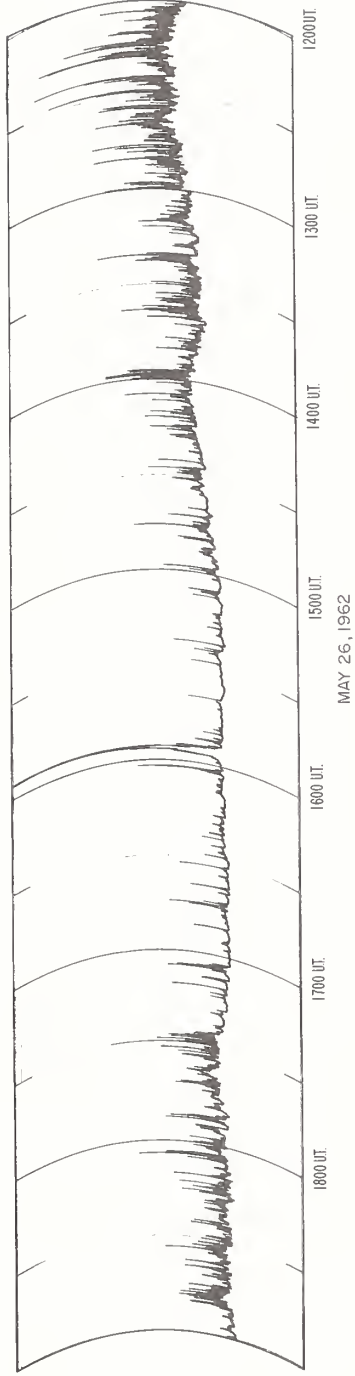
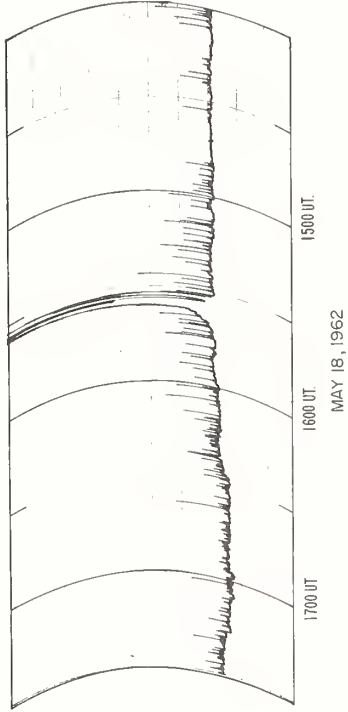
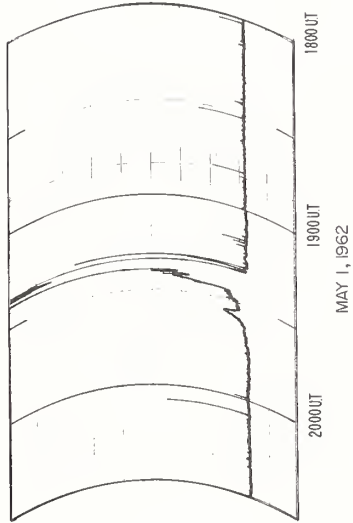
COMMERCE - STANDARDS - BOULDER

# SOLAR NOISE BURSTS

BOULDER

MAY 1962

108 Mc



COMING - FUTURE - BULDER

# SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

MAY 1962

HAO BOULDER

7.6-41 MC

Date 1962	Bursts			Frequency Range (mc)	Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity			Type	Time (U.T.)	Intensity	
1 May	III	1425-1425.15	2	24-h1	14 May	III	2325.45-2326.15	1-	22-36
	III	1639.30-1639.45	1-	21-h1	15*	III	2330.30-2330.45	1-	20-h1
	III	1918.30-1921.30	3	7.6-h1		III	2352.15-2352.45	1-	22-h1
	II	1921-1940	3	12-h1		III	2353-2353.15	1-	22-h1
	IV	1925-2130	1	23-h1		III	2353.30-2353.45	1-	22-h1
2	III	1228-1228.15	1	13-h1	16	III	1751-1751.30	1	24-h1
	III	1514-1514.15	1	8-h1		III	1833.45-1834	1	19-h1
	III	1527-1527.15	1-	19-h1	17	III	2047.30-2047.45	1-	23-h1
	III	1529.45-1530	1	22-h1		III	2048-2048.15	1-	23-h1
	III	1530.15-1530.45	1	22-h1		III	2138.30-2138.45	1-	21-h1
	III	1531-1531.15	1-	22-h1	18	III	2034.15-2035	1	23-h1
	III	1534.15-1534.30	1	20-h1		III	2339.15-2340	1+	21-h1
	III	1609-1609.30	1	21-h1	19	III	1502-1502.45	1	21-33
	III	1725.45-1726	1	20-h1		III	1539.15-1540	1	20-34
	III	1727.15-1729	1+	7.6-h1		III	1832.30-1833.15	1-	21-40
	III	1742.15-1742.30	1-	30-h1		III	1958-1958.15	1-	29-h1
	III	1809-1809.45	1	24-h1		III	2017-2022.30	1	21-h1
	III	1927.30-1923.15	1-	7.6-h1		III	2327.45-2328.30	1	20-h1
	III	1948.15-1948.30	1	26-h1	20	III	1839-1839.45	1	20-h1
	III	1950.15-1951	1+	7.6-h1		III	2021.30-2022.45	2-	9-h1
	III	2133.30-2134	1	12-h1	21	III	2133.15-2133.30	1	32-h1
	III	2134.30-2134.45	1-	23-h1		III	2147-2137.15	1-	26-h1
	III	2136.15-2136.30	1	12-h1	22	III	1523-1523.30	1-	24-39
	III	2140.30-2141.15	1+	12-h1		III	2045.30-2046	1	35-h1
	III	2152.15-2154	1+	9-h1		III	2337-2337.30	1	22-h1
	III	2228.30-2229	1	16-h1		III	2337.45-2338	1-	23-36
	III	2229.30-2229.45	1-	21-h1		III	2343.15-2343.30	1-	23-h1
	III	2230.45-2231.15	1-	21-h1	23	III	1408.15-1408.30	1-	24-h1
	III	2236-2236.15	1-	22-h1		III	1644-1644.15	1-	24-h1
	III	2253-2253.30	1-	22-34		III	1628-1628.30	1	20-h1
	III	2308.45-2309.45	1+	14-h1		III	1632.15-1632.30	1-	21-h1
	III	2311.15-2311.30	1-	21-h1		III	1635.45-1636.15	1	23-h1
	III	2312.30-2313	1-	21-h1		III	1651.15-1651.45	1	26-39
	III	2316.30-2317	1+	14-h1		III	1845.15-1847.30	1	19-h1
	III	2318-2318.30	1	14-h1		III	2235.30-2236.45	1+	20-h1
	III	2319.45-2320	1-	22-h1		III	2241.30-2243	2-	19-h1
	III	2347.15-2349.15	2	10-h1		III	2245.45-2246	1-	27-h1
	III	2349.45-2351	2	10-h1		III	2429.30-2430	1	23-h1
	III	2437.15-2437.45	1+	13-h1		III	2433.30-2434.15	1+	21-h1
	III	2450.30-2450.45	1	24-h1		III	2444.15-2444.30	1	23-h1
	III	2451.15-2451.30	1	16-h1	24	III	2444.50-2446	1	24-h1
	III	2459.30-2459.45	1-	21-h1		III	1842.15-1842.30	1-	22-34
	III	2501-2501.15	1-	26-h1		III	1850.45-1851.30	1	23-h1
3	III	1955.30-1955.45	1-	21-h1		continuum	1900-2045	1-	26-38
	III	1956-1956.15	1	7.6-h1		III	1913-1913.45	1	23-h1
4	III	2444.30-2445	1	22-h1		III	1918.30-1919	1-	26-h1
	III	1619.15-1620.45	1	20-h1		III	2052.30-2053.15	1	22-h1
	III	2212.15-2212.45	1-	12-h1		III	2057-2057.30	1-	22-h1
	III	2334.45-2335	1-	22-h1		III	2057.45-2058.30	1-	23-h1
	III	2336-2336.15	1-	22-h1		III	2125-2125.15	1	23-h1
	III	2338.30-2339.45	1-	22-h1		III	2202.45-2203.15	1-	24-h1
	III	2342-2342.30	1-	22-h1		III	2223.15-2223.45	1-	23-h1
5	III	1554.45-1555.45	1	12-h1		III	2437-2437.15	1-	26-h1
	III	1557.45-1558	1-	24-h1		III	2444-2444.1.30	1-	25-h1
	III	1559-1559.15	1-	24-h1	25	continuum	41440-1800	1-	20-h1
11#	III	2303.15-2303.30	1-	22-h1		III	1542.30-1543.15	1+	24-h1
	III	2304.45-2305.15	1	22-h1		III	1616.45-1617.30	1+	26-h1
12	III	1557.45-1558.30	1-	27-h1		III	1619.15-1619.45	1+	24-h1
	III	1727-1727.30	1	26-h1		III	1716-1716.45	2-	18-h1
	III	1915.30-1915.45	1-	28-h1		continuum	1800-1925	1	8-h1
	III	1953.30-1954	1-	33-h1		continuum	1925-2400	1-	18-h1
	III	2301.45-2302.15	1+	24-h1		continuum	2400-2500	1-	20-h1
	III	2322.15-2322.30	1-	33-h1		III	2408.15-2408.45	1	21-h1
	III	2322.30-2322.45	1-	33-h1		III	2442-2442.30	1	22-h1
14	III	2323-2323.30	1	23-h1		III	2450-2450.30	1	22-h1

# = Observations began 2220 UT.

\* = Observations began 2045 UT.

d = harmonic structure

COMMERCE - STANDARDS - BOULDER



# SOLAR RADIO EMISSION SPECTRUM OBSERVATIONS

IVg

MAY 1962

HAO BOULDER

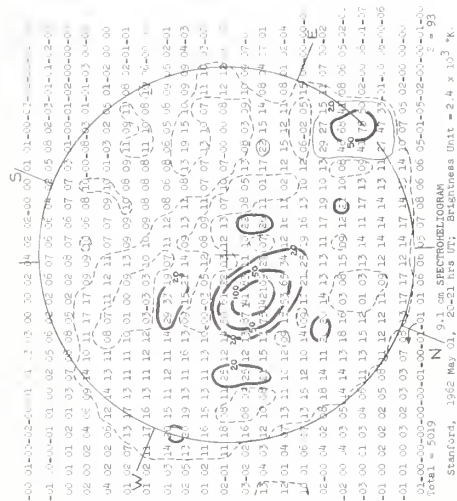
7.6-41 MC

Date 1962	Bursts			Frequency Range (mc)	Date 1962	Bursts			Frequency Range (mc)
	Type	Time (U.T.)	Intensity			Type	Time (U.T.)	Intensity	
25 May	III	2459-2459.30	1+	22-41	29 May	III	2057.45-2058	1	20-41
	III	2500-2500.15	1+	22-41		III	2132-2132.30	1-	20-41
	III	2515.15-2516	1-	19-41		III	2238.30-2238.45	1-	21-41
	III	2526.45-2527	1-	22-39		III	2253.15-2253.30	1-	20-35
26	continuum	61355-1800	1-	21-41		III	2303-2303.30	1-	21-41
	III	1544.30-1545	1+	16-41		III	2321.15-2321.30	1-	21-41
	III	1716.45-1717.15	1+	22-41		III	2323.45-2324	1-	22-41
	III	1734.30-1735	1+	24-41		III	2324-2324.15	1-	22-41
	III	1849-1849.45	1-	22-41		III	2327.30-2327.45	1-	22-41
	III	1850.30-1851.30	1-	24-41		III	2327.45-2328	1-	22-41
	III	1855-1855.15	1	23-41		III	2333.30-2333.45	1-	22-41
	III	1857.15-1858	1+	22-41		III	2352.15-2353.45	1	16-41
	III	1904.45-1904.15	1+	23-41	30	III	1351.45-1352.15	1	21-41
	III	1916-1916.45	1-	23-41		III	1359.15-1400	1-	16-41
	III	1928.15-1928.30	1	21-41		III	1412-1412.15	1-	21-36
	III	1932-1932.15	1-	25-41		III	1633.45-1634.15	1+	27-41
	continuum	2020-2400	1-	24-41		III	1635.45-1639.15	2	7.6-41
	III	2330-2330.30	2-	22-41		continuum	1701-1800	1-	22-41
	III	2347.30-2348	1+	23-41		continuum	1805-1810	1+	21-41
	continuum	2400-2430	1-	25-41		III	1808.30-1810	1+	21-41
	III	2446.45-2447	1-	22-41		III	1828-1828.30	1	21-41
	III	2451-2451.30	1-	24-41		III	1833-1833.15	1-	21-41
	III	2452.15-2452.15	1-	25-41		III	1840-1841	1	21-41
	III	2524.15-2524.45	1-	24-41		III	1937.30-1939	2	7.6-41
	III	2527.30-2528.15	1+	10-41		III	1940.30-1942.30	2	7.6-41
27	III	1401.45-1402.15	1+	16-41		III	1945-1946.30	2	7.6-41
	continuum	1410-1420	1-	20-41		III	2048-2048.15	1-	21-41
	III	1416-1416.45	1-	22-41		continuum	2056-2205	1-	25-41
	III	1411.15-1411.30	1-	19-41		III	2057.30-2057.45	1-	25-41
	III	1414.15-1414.45	1+	18-41		III	2212.30-2212.45	2	22-41
	III	1416-1417.15	1+	15-41		continuum	2303.30-2354	1-	21-41
	III	1439.30-1440	1	21-41		III	2353.45-2354.30	2	23-41
	III	1442.45-1443.15	1-	23-41		III	2432.30-2432.45	1-	22-41
	III	1452-1452.30	1+	20-41		III	2440-2440.45	1+	16-41
	III	1516.45-1520	2	7.6-41		III	2448-2448.15	1-	21-41
	IV	1530-1725	1-	22-41	31	III	2511.30-2511.45	1-	25-41
	III	1539.15-1539.45	1	23-41		III	1403-1403.30	1	20-41
	III	1547.15-1547.45	1	25-41		III	1404.45-1405.15	1	21-41
	III	1626.15-1627.45	1	7.6-41		III	1405.45-1406.15	1	21-41
	III	2340.15-2340.45	1	22-36		III	1518.15-1518.45	1-	20-41
28	III	1415-1415.15	1	19-31		III	1539.15-1539.45	1	21-41
	III	1416-1416.45	1-	19-31		III	1617-1617.30	1-	23-41
	III	1424.30-1425.30	1-	20-41		III	1708.45-1710	2-	18-41
	III	1439.15-1439.45	1+	12-41		III	1710.45-1711.45	1+	18-41
	III	1443.15-1443.45	1	16-41		III	1712-1713.15	1+	19-41
	III	1444-1444.15	1+	16-41		III	1716.45-1718.45	2-	18-41
	III	1444.30-1445	1+	16-41		III	1724-1724.15	1	18-41
	III	1527-1527.30	1	22-35		III	1726-1726.30	1	21-41
	III	1549.30-1550	1-	14-35		III	1807.15-1808.15	2-	15-41
	III	1620.30-1621	1	23-41		III	1838-1838.45	1	19-36
	III	1703-1703.45	1+	8-39		III	1956.30-1956.45	1-	21-38
	III	1730-1731	1	8.5-37		III	1958.30-1959.15	2-	8.5-41
	III	1735.45-1736.15	1-	8.5-33		III	2019.15-2019.30	1	19-32
	III	1736.15-1737.30	1	11-41		III	2047.45-2048.30	1	16-41
	III	1737.45-1738.30	1+	11-41		III	2051.45-2052.30	1+	10-41
	III	1743.15-1744.45	2	7.6-41		III	2054.45-2056	1	18-34
	III	1802.45-1803.30	1	20-31		III	2058.45-2100	1-	21-34
	III	1814.30-1815.45	2	7.6-41		continuum	2110-2125	1-	22-41
	III	1851.30-1853.30	2-	7.6-41		III	2115.45-2116.15	1	26-39
	III	1929-1930	1	7.6-36		III	2117.30-2118	1	13-41
	III	1941-1942.15	2-	7.6-41		III	2118.15-2118.45	1	13-41
	III	2017-2018	1	7.6-36		III	2119-2120	1-	18-41
	III	2048.30-2049.30	1+	8.5-41		III	2131.30-2132.30	2-	10-41
	III	2104.30-2104.45	1	20-38		III	2132.30-2133	1+	12-41
	III	2109.15-2110.45	1-	15-41		III	2216-2216.30	1	21-34
	III	2131-2131.30	1	26-38		III	2243.30-2244	1-	22-41
	III	2222.30-2223	1	21-41		III	2258.30-2258.45	1-	22-41
	III	2223.30-2223.45	1	21-41		III	2306.45-2307	1-	19-38
	III	2348.45-2349.15	1-	21-41		III	2415-2415.30	1+	25-41
29	III	1513-1513.30	1	22-41		III	2452.30-2453.15	1	15-41
	III	1514-1514.15	1-	22-41		III	2500-2500.30	1-	20-41
	III	1551-1551.45	1+	20-41		III	2506.45-2509	1	22-41
	III	2048.15-2048.45	1	16-41		III	2508.30-2514	1	17-41

## SOLAR RADIO EMISSION SPECTROHELIOGRAMS

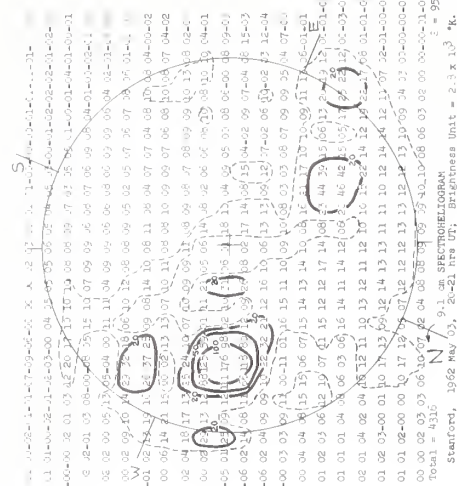
MAY 1962

STANFORD

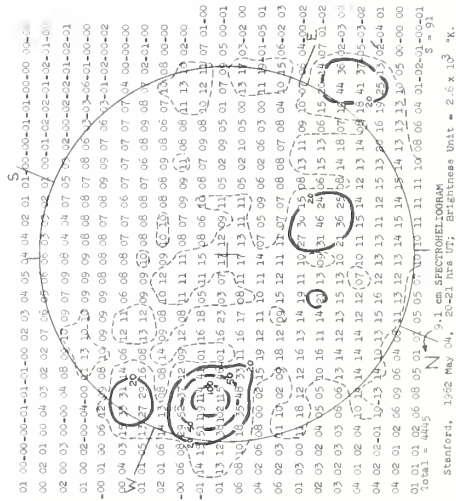


MAY 2, 1962

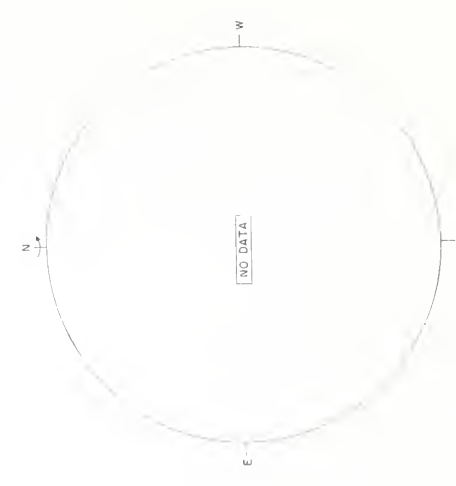
9.1 cm



MAY 5, 1962



MAY 6, 1962



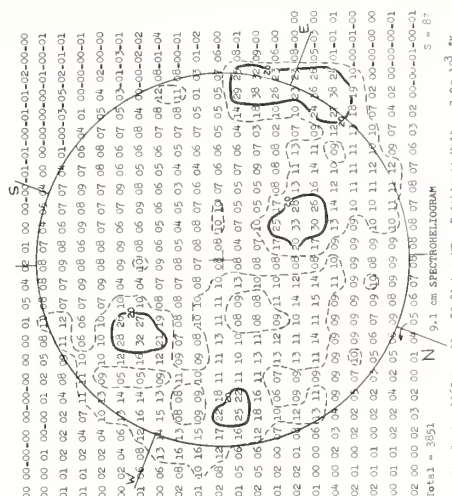
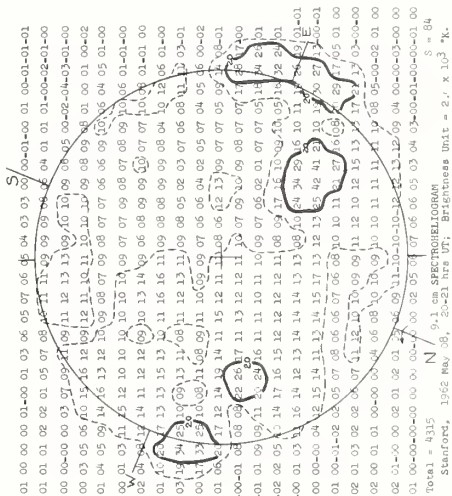
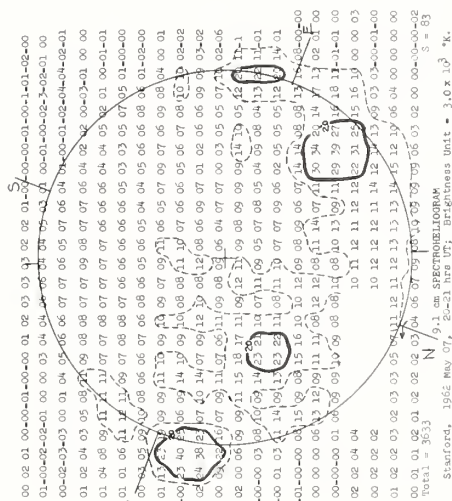
MAY 6, 1962

# SOLAR RADIC EMISSION SPECTROHELIOGRAMS

STANFORD

MAY 1962

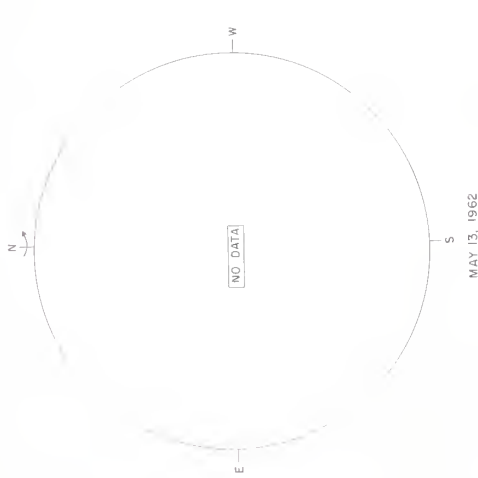
9.1 cm



# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

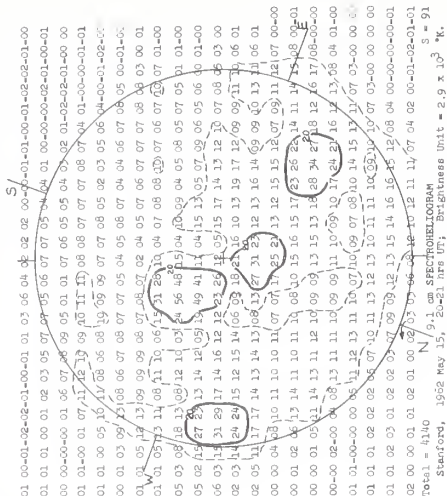
MAY 1962

STANFORD

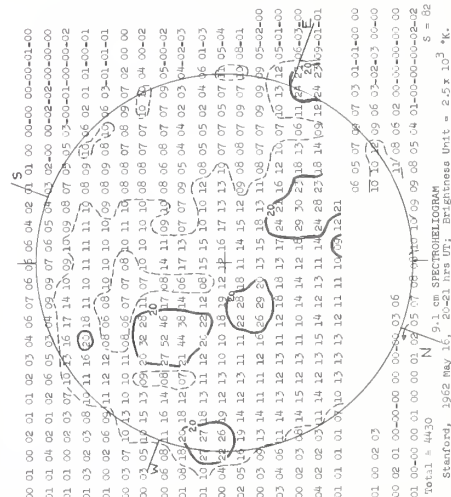


MAY 13, 1962

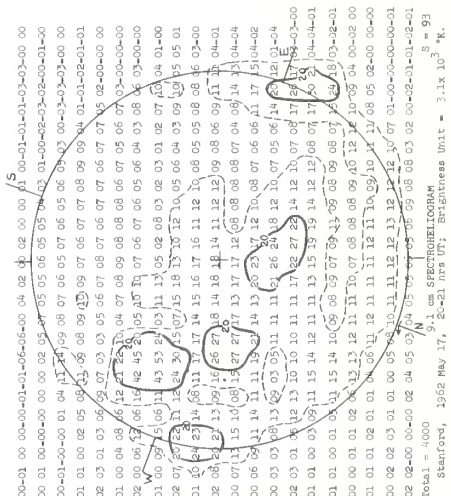
9.1 cm



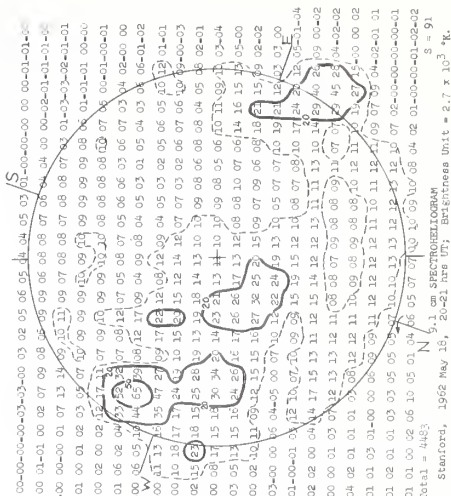
Stanford, 1962 May 13, 20-21 hrs UT; Brightness Unit =  $2.9 \times 10^3$  W.  
Total = 4430  
N = 9.1 cm SPECTROHELIOGRAM  
S = 91



Stanford, 1962 May 13, 20-21 hrs UT; Brightness Unit =  $2.5 \times 10^3$  W.  
Total = 4430  
N = 9.1 cm SPECTROHELIOGRAM  
S = 91



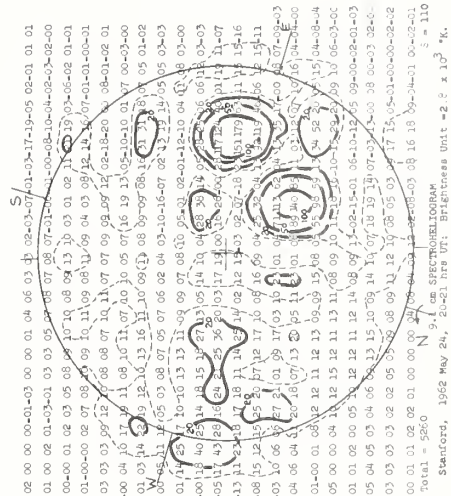
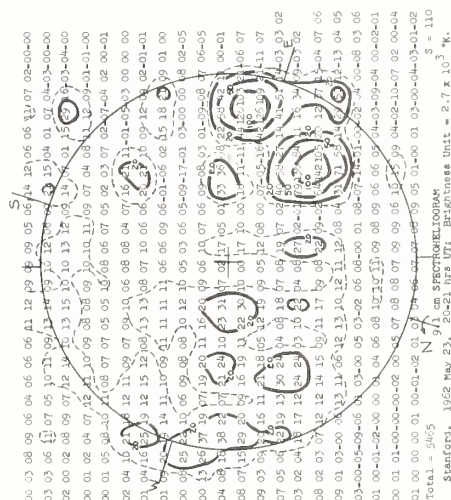
Stanford, 1962 May 13, 20-21 hrs UT; Brightness Unit =  $3.1 \times 10^3$  W.  
Total = 4400  
N = 9.1 cm SPECTROHELIOGRAM  
S = 93



Stanford, 1962 May 13, 20-21 hrs UT; Brightness Unit =  $2.7 \times 10^3$  W.  
Total = 4483  
N = 9.1 cm SPECTROHELIOGRAM  
S = 91



## MAY 1962

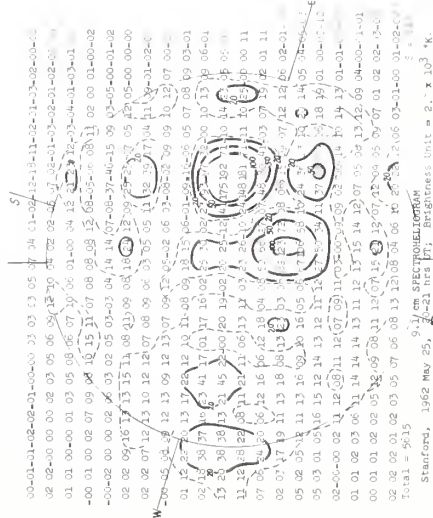


# SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MAY 1962

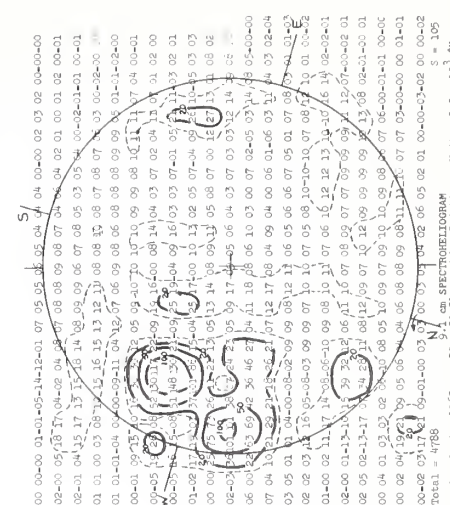
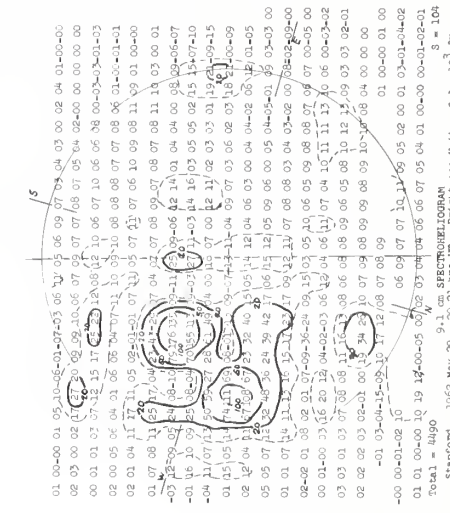
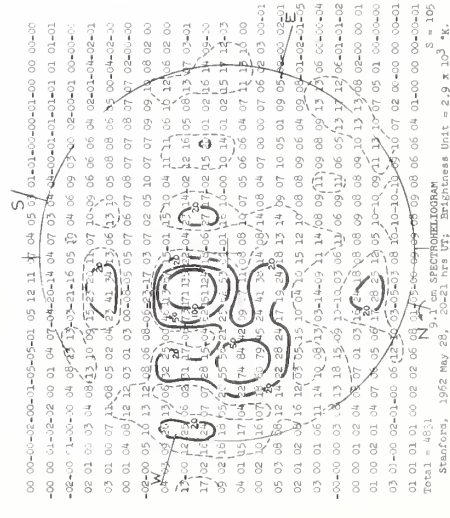
STANFORD

9.1 cm



MAY 26, 1962

MAY 27, 1962

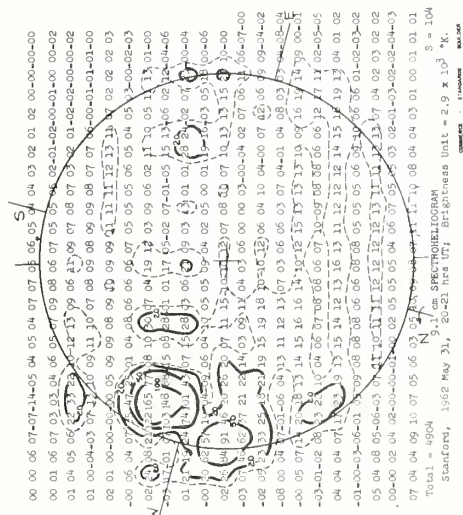


9.1 cm

## SOLAR RADIO EMISSION SPECTROHELIOGRAMS

MAY 1962

STANFORD



Cal = 4904  
Stanford, 1962 May 31, 20-21 hrs UT; Brightness Unit =  $2.9 \times 10^3$  °K.  
9.1' cm SPECTROHELIOGRAM  
N  $\lambda$  4100 4000 3900 3800 3700 3600 3500 3400 3300 3200 3100 3000 2900 2800 2700 2600 2500 2400 2300 2200 2100 2000 1900 1800 1700 1600 1500 1400 1300 1200 1100 1000 900 800 700 600 500 400 300 200 100 0  
S = 104  
Control Plate: 17 Aug 1962 BAAI, USAF

Va

# COSMIC RAY INDICES

Climax Neutron Monitor

IGC STATION B 305

APRIL 1962

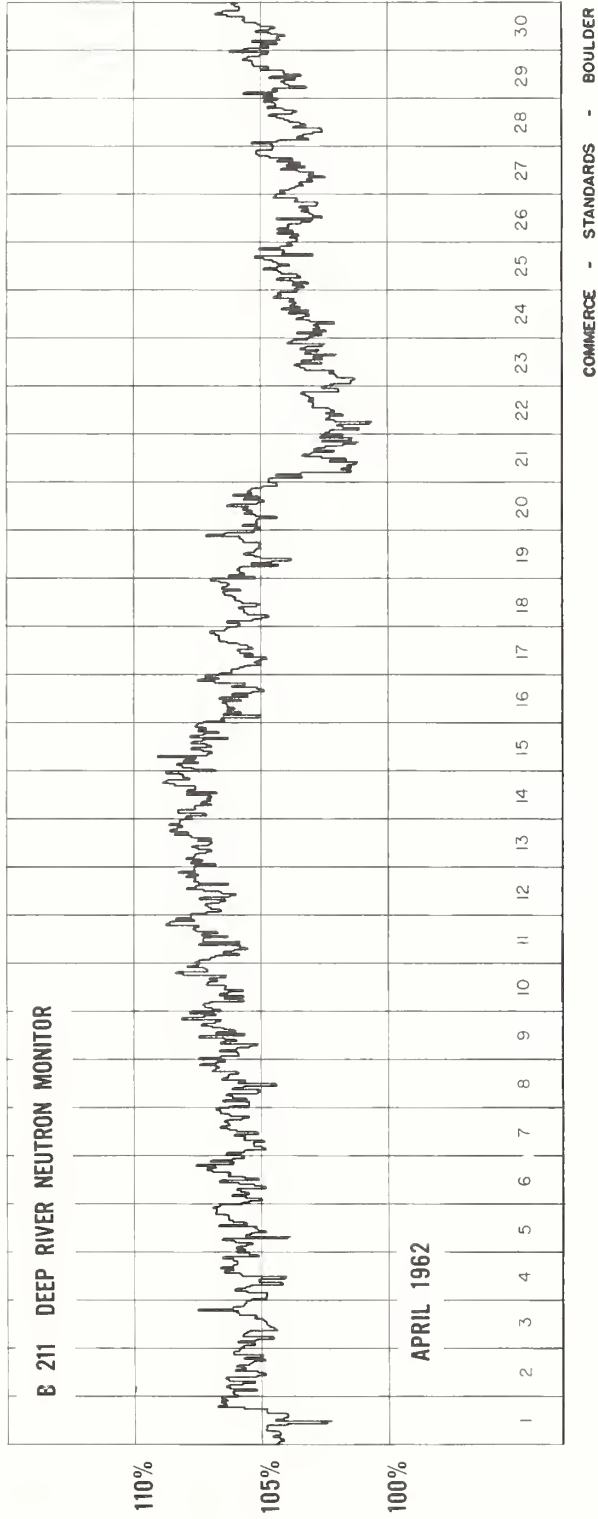
Apr. 1962	Daily average counts/hr.*	Apr. 1962	Daily average counts/hr.*
1	3002.2	16	3055.5
2	3020.9	17	3042.7
3	3031.8	18	3028.9
4	3040.3	19	3006.8
5	3046.1	20	3025.6
6	3043.0	21	2933.7
7	3064.7	22	2947.5
8	3066.1	23	2945.2
9	3063.0	24	2953.8
10	3081.3	25	2980.6
11	3099.3	26	2986.0
12	3102.9	27	2988.1
13	3093.7	28	3008.1
14	3079.1	29	3037.8
15	3078.8	30	3053.4

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\*Scaling Factor 128



COSMIC RAY INDICES  
(Pressure Corrected Hourly Totals)



## GEOMAGNETIC ACTIVITY INDICES

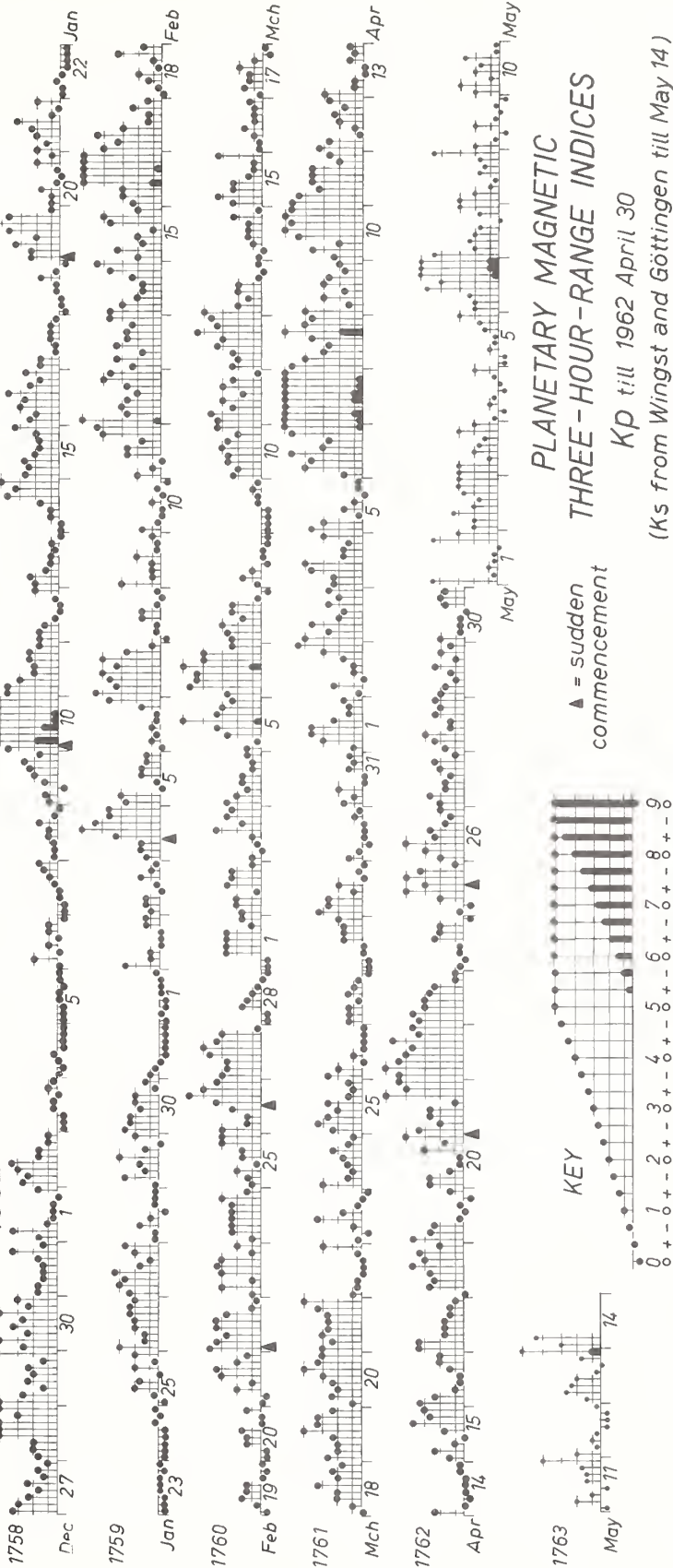
APRIL 1962

Apr. 1962	C	Values Kp								Sum	Ap	Final Selected Days
		Three hour Gr. interval										
		1	2	3	4	5	6	7	8			
1	0.6	1o	3o	4-	4-	2+	1+	1+	2-	18o	11	Five Quiet
2	0.7	1-	2+	0+	1o	1o	2-	3o	4+	14+	9	
3	0.8	4o	3-	4-	2o	2-	3-	2o	3-	21+	13	
4	0.7	2+	2+	4-	4o	2-	2-	1+	3o	20o	12	
5	0.4	4-	3o	1-	2-	1o	0+	1-	1-	12-	7	
6	1.3	2-	4o	4-	5-	3o	3-	5-	5+	30-	27	24
7	1.6	5+	6-	5o	6-	6-	5+	5+	5o	43o	58	29
8	1.4	5-	4o	3o	3-	4-	6+	4o	4-	32o	32	30
9	0.8	4o	1+	3o	2-	3o	3-	2-	2o	19+	12	
10	1.4	2+	4-	2o	4+	5o	5-	5o	5-	32-	30	
11	1.1	5-	4+	3+	4-	4-	4-	2o	3-	28o	22	Five Disturbed
12	0.5	3+	3-	1-	1o	2o	2+	2-	3-	16+	9	
13	0.2	3o	1o	1o	0+	0+	1+	1o	1+	9+	5	
14	0.1	2+	0+	0o	0+	0+	0+	1-	1-	5o	3	
15	0.7	1+	2+	1o	0+	2-	4-	3-	3o	16o	9	
16	0.5	3+	2+	1o	1-	1-	1+	2o	2o	13+	7	8
17	0.3	3+	3+	2-	2-	2-	1+	1+	1o	15+	8	10
18	0.7	0+	3-	2+	3-	4-	3o	3+	2o	20o	12	22
19	0.4	4-	3-	2+	1-	0+	1-	0o	1+	12-	7	
20	0.7	3-	3-	1+	1-	1-	3o	2-	4o	17-	10	
21	1.3	3+	2o	3-	3-	1o	5o	4o	4+	25o	20	Ten Quiet
22	1.3	4+	5o	4+	4o	4-	5-	3+	4-	33o	30	
23	0.7	3+	4-	3o	3o	3-	2+	1o	1o	20o	12	
24	0.2	1-	0+	1-	1-	2+	2o	2o	0o	9-	4	
25	0.8	1-	0o	2o	4o	3o	4o	3+	1o	18o	13	
26	0.9	2o	3o	4o	2+	3-	2-	1+	2o	19o	11	13
27	0.5	2o	3-	2-	2-	1+	2o	2+	1o	15-	7	14
28	0.4	2-	2+	3o	1+	1+	2+	2o	2+	16+	8	16
29	0.3	2o	2-	1o	1+	2+	1o	2o	1+	13-	6	17
30	0.2	2o	1-	1-	1-	0+	2-	2o	2-	10-	5	19
												24
												27
												29
												30
Mean:	0.72									Mean:	14	

DAYS IN SOLAR ROTATION INTERVAL

ROT. =  
NR.

1962



PLANETARY MAGNETIC  
THREE-HOUR-RANGE INDICES

Kp till 1962 April 30

(Ks from Wingst and Göttingen till May 14)

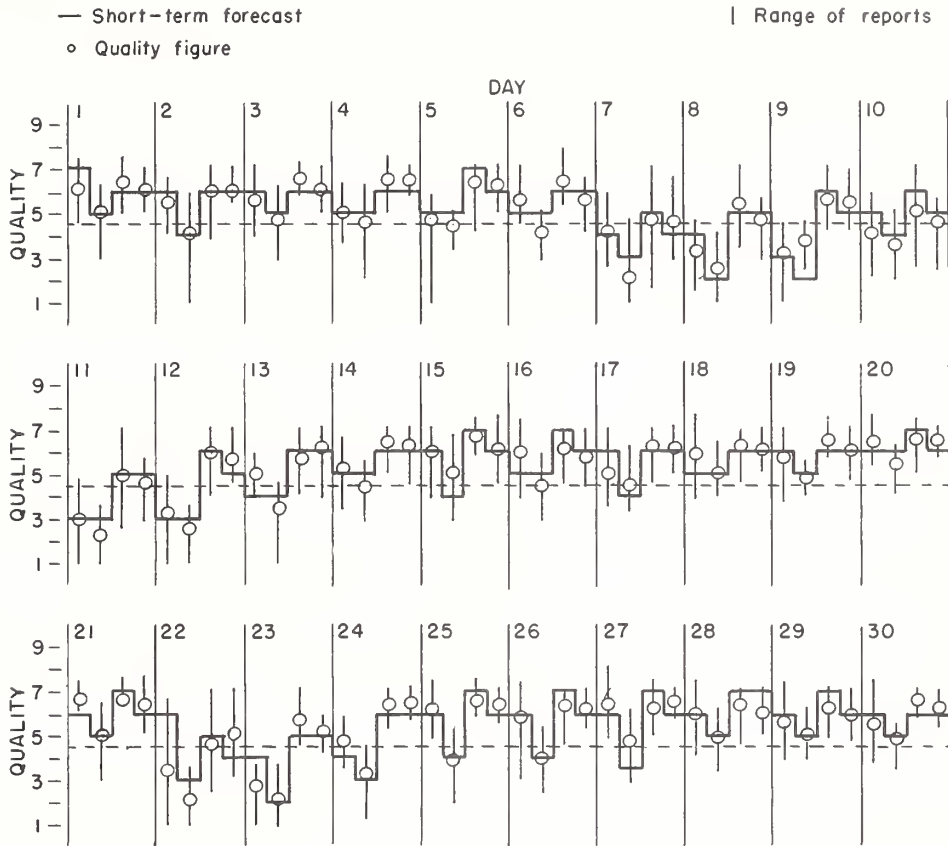
J.B.

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## NORTH ATLANTIC

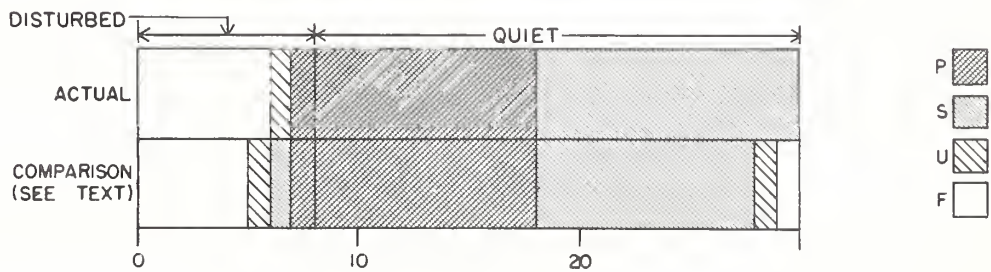
APRIL 1962



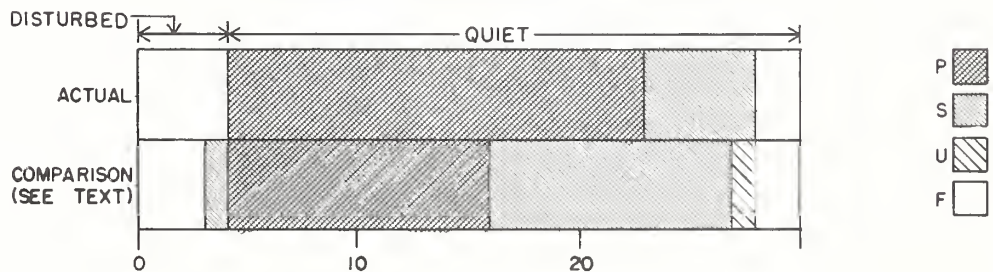
OUTCOME OF ADVANCED FORECASTS

FINAL ESTIMATE

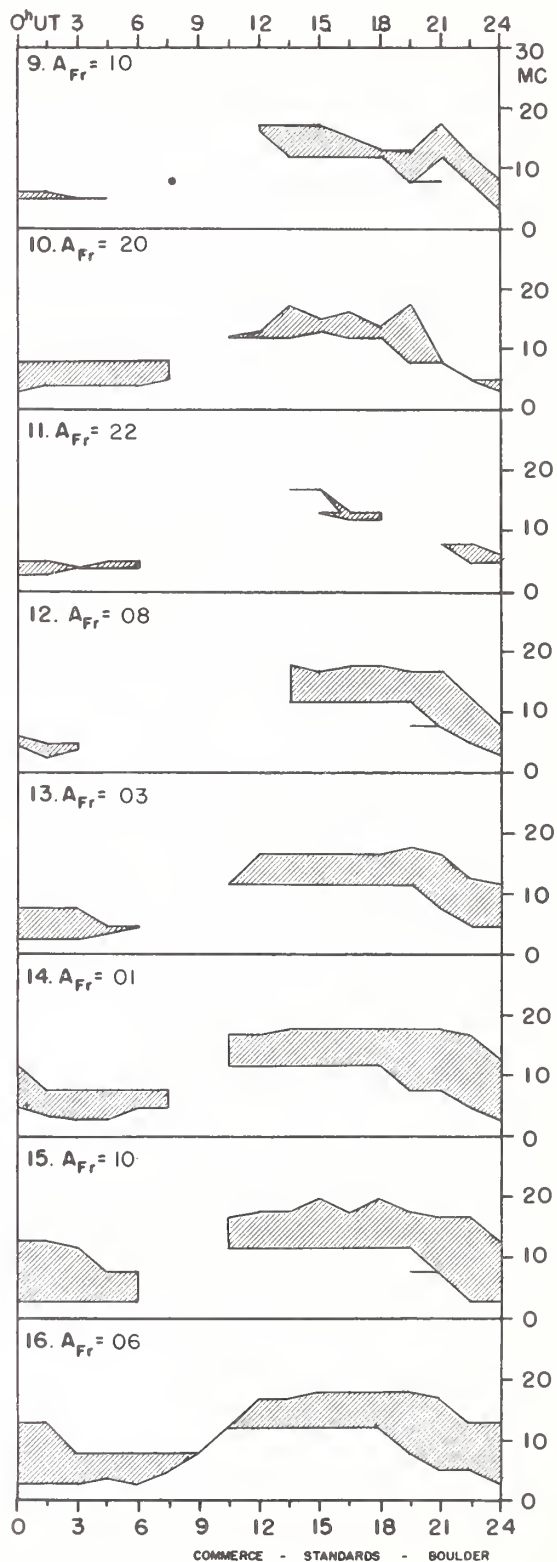
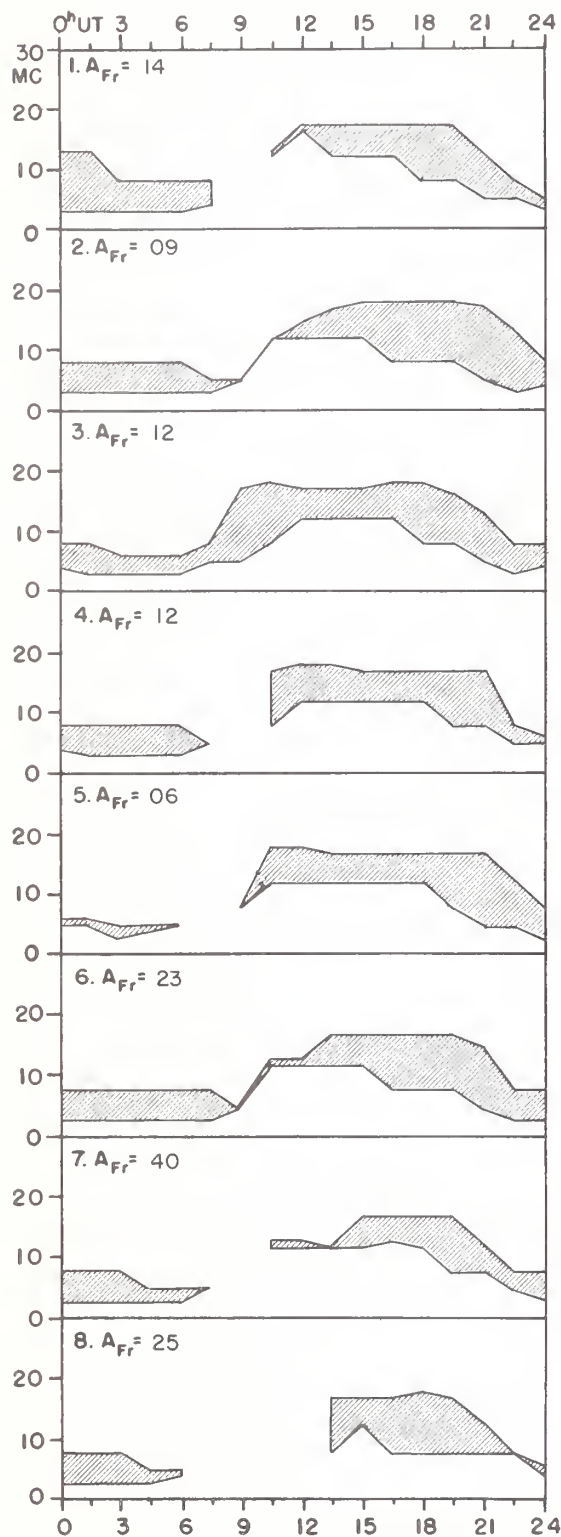
## NORTH ATLANTIC



## NORTH PACIFIC

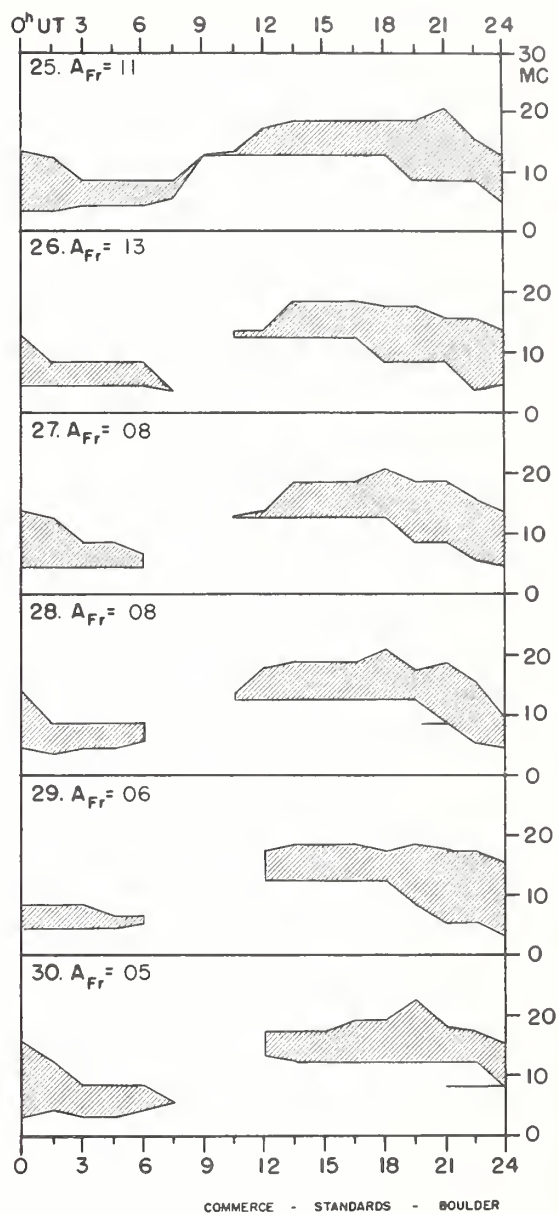
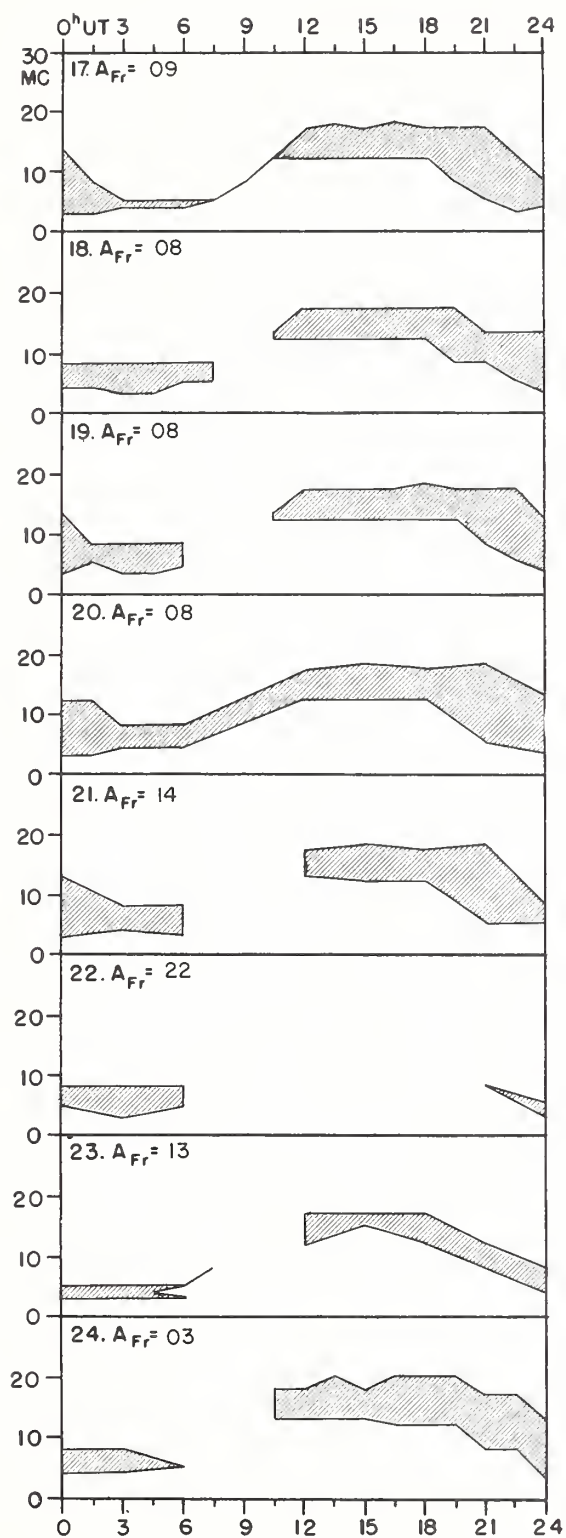


APRIL 1962





APRIL 1962



## ALERT PERIODS AND SPECIAL WORLD INTERVALS

## INTERNATIONAL WORLD DAY SERVICE

MAY 1962

Issues May 1962 Day/Time U.T.	Advance Geophysical Alert	No.	World-Wide Geophysical Alert	Special World Intervals
05/1935	Lockheed, Solar Flare, Two 05/1900Z			
12/0125	Sac Peak, Solar Flare, One Plus 11/2132Z			
29/0045	Sac Peak, Solar Flare, Two 28/1640Z			

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